MARCH 19, 1951

NEWS ISSUE

Electrical World

Price 35 Cents

A McGRAW-HILL PUBLICATION

Fred C. McMillan, Nominated as 1951-52 President of AIEE

Portrait of Power.....Page 16

How Many Appliances in 1951?.....Page 30

"Song of Easter"—Members of the Waring Chapel Choir rehearse for the feature number of the Special Easter Program, to be presented for the fifth consecutive year. Some of the girls wear sun glasses to protect their eyes against the bright lights of the studio during rehearsal.

"Best Family Entertainment on TV"

Fred Waring Show makes thousands of friends for electrical industry

"Hi Neighbor!"—Friendly, folksy numbers like this set the pattern of entertainment for the Fred Waring Show—make it a hit with everybody. The girl is Joan Wheatley.

"Maintains consistently high level" . . . "highlights American way of life at its best". . . "even the commercials are interesting"—these are typical of the comments constantly received on the Fred Waring Show, sponsored by General Electric.

They come from all over the nation, from farms and cities, from leaders in industry, from newspapers and radio publications. Welcome, too, are the comments received from our friends in electric utilities. "This show does a fine job for the entire industry," they say. "This is the kind of good-will building which benefits us all."

During 1950 the Waring Show won 9 awards for outstanding television entertainment.

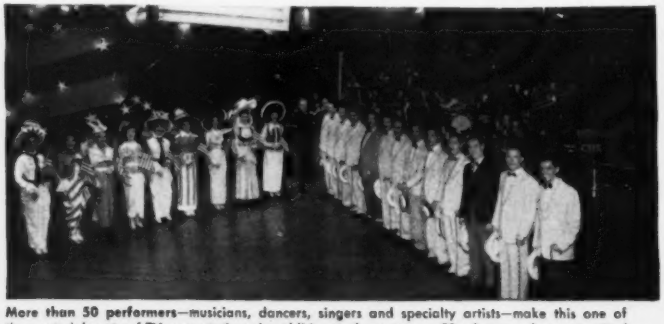
To all who have been generous in their praise, General Electric and Fred Waring's Pennsylvanians say thank you—and don't forget to watch for the special Easter program. Consult your local paper for time and station. General Electric Company, Schenectady 5, N. Y.

MORE POWER TO AMERICA

GENERAL ELECTRIC

301-158

Glamorous Jane Wilson, star of the show, brings beauty and charm to every program. Her lyric soprano voice has made her a favorite with thousands. She dances, too!



More than 50 performers—musicians, dancers, singers and specialty artists—make this one of the most elaborate of TV presentations. In addition to the cast, over 50 other people are required to prepare, direct and help in production.

The Electrical Week

INDUSTRY MOBILIZATION — Robert M. Hatfield, Jr, has resigned as director of NPA's Power Equipment Division. Charles F. Kells, West Penn Electric Co, is expected to succeed him (p 4) . . . Maj Gen Thomas F. Farrell has been appointed Defense Production Authority's deputy administrator for resources expansion (p 4) . . . Melvin W. Cole, deputy director of NPA's Iron and Steel Division, has been named director (p 4) . . . New and amended M-orders are listed on Page 4 . . . After a month of internal wrangling, NPA has decided to limit steel but place no limit on copper and aluminum going into household appliances and other consumer durable goods (p 5) . . . A Congressional committee has suggested preference for lowest-cost power be given new aluminum producers (p 5) . . . Wisconsin Electric Power Co has found a new source—Germany—for steel going into construction of its Oak Creek Plant (p 5).

WASHINGTON—Secretary of State Dean Acheson has requested International Joint Commission approval for construction of Libby Dam and power plant on Kootenai River in Montana (p 12) . . . Changes in power capacity made in January are on Page 14.

ELSEWHERE—Aluminum was used extensively in the new Titus Plant of Metropolitan Edison Co near Reading, the PEA Prime Movers Committee was told (p 6) . . . A special committee of the Washington State Legislature has been appointed to investigate the attempted bribery of two legislators on the controversial Spokane power bill (p 6) . . . 1950 was the greatest year in history for the Canadian electric utility industry, with new hydro capacity topping 1 million kw and energy output going over 50 billion kwhr (p 11) . . . Members of Interstate Power Club, meeting in New York, were urged to make electric power work more effectively (p 12) . . . And appliance output is holding up far beyond expectations (p 30).

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The Federal Power Commission has a new map of principal electric facilities in North Dakota. It can be ordered from FPC for $1, but you should explain who you are and for what use the map is intended when ordering it. All new FPC maps now are classified.

REA is "facing an acute need for engineering personnel." Positions ranging from $3,100 for graduates with no experience to $6,400 for up to three years' experience are available, REA has announced.

The indicated January rate for combustion of coal only was 1.17 lb per kwhr compared with 1.24 lb a year earlier.

Fantasy Dept—A nice, old lady on Beacon Hill when asked by a Boston Edison service terminal inspector where the "feed box" was, conducted him to the manger in the former stable where Dobbin used to get his oats.

Soft coal production for the first eight weeks of 1951 was 107.6% above the same period in 1950. The catch: Last year there was a five-week strike.

They're honest in South Australia. The government-owned power authority is known officially as the Electricity Trust of South Australia.

Notes From The News

Clifford B. McManus, Defense Electric Power Administrator and former president of Georgia Power Co, was made honorary mayor of Brunswick, Ga., at ceremonies there recently. The utility is building a plant at Brunswick and city officials conferred the honor upon McManus as a gesture of appreciation . . . Cincinnati Gas & Electric Co was among the seven recipients of the governor's awards for the Advancement of Ohio's Prestige. The utility was cited for bringing industrial development to Ohio through its long-range advertising program . . . Concrete pouring has resumed on the Philpott Dam, 14 miles west of Martinsville, Va. Work was halted Jan. 26 when fire damaged machinery . . . Ohio's Governor Schricker has signed a bill making advertising of public utility rate increase petitions mandatory in newspapers of cities and towns affected. He also approved a bill amending the Rural Electrification Membership Corporation Act to provide that such groups may remain in operation after the city or town they serve rises over 1,500 in population . . . The Crow Indian Tribal Council has rejected an offer by the federal government of $1.5 million for tribal land and the tribe's interest in the proposed Yellowtail Dam and irrigation and hydro project on the Big Horn River, Montana. The tribe instead offered to lease the dam site to the government provided the power plant reverted to the tribe when the cost of construction had been paid for. The offer was made only in the event that the Bureau of Reclamation insisted on having the project constructed on the reservation .

INDUSTRY MOBILIZATION

Hatfield Quits as PED Head; Kells May Take Over; Hutton Also Leaves

Robert M. Hatfield, Jr, resigned last week as director of the Power Equipment Division of the National Production Authority. His successor is expected to be Charles F. Kells, connected with the engineering department of West Penn Electric Co, New York.

Hatfield, whose resignation became effective March 15, is returning to his position as general manager of the western division of Combustion Engineering-Superheater, Inc, at Glendale, Calif. Appointed Nov. 1 as NPA consultant to organize PED, Hatfield became its first director although he had come to Washington with the agreement that he stay but three months.

Hatfield Got Power DO's

As well as organizing the division, Hatfield successfully pressed for Defense Orders for power equipment manufacturers' steel, copper, and aluminum requirements in May and June. Under his direction, PED has established a program of controlling the order boards of heavy power equipment makers (EW, March 12, p 78).

Kells left the industrial engineering staff of West Penn Power Co during the last war to serve with the War Production Board. Later he worked for the Industrial Truck Association and was eastern manager for "Electrified Industry." He had been with West Penn Electric but a few weeks.

Hutton Quits Too

F. E. Hutton, alternate director to Hatfield, also has resigned and is returning to Babcock & Wilcox Co. It is not expected that an alternate director will be named to serve with Kells.

A new position of staff labor assistant has been established, and W. A. Calvin, acting director of the American Federation of Labor's Social Insurance activity, has been appointed to the job. The labor position was set up under a policy of getting labor representation on the staffs of NPA's industry divisions.

Robert McCollom, Westinghouse Electric Corp, has been appointed chief of PED's switchgear section. Louis H. Walke, Allis-Chalmers Manufacturing Co, also has joined this section.

Other new members of PED section staffs include:

Condenser Section—Wylie Keck, Foster-Wheeler Corp, Miami, Fla.; Boiler Section, R. P. Davis, Wickes Boilers Co; Robert Martin, William J. Olvany, Inc, contractors; and Francis Schroff, Superior Combustion Industries.

Electrical Section—George A. Ball, Rural Electrification Administration; and Wiley B. Ford, Potomac Electric Power Co.

Hydraulic Turbine Section—O. A. Arnold, Federal Power Commission, and James Hayes, Cleveland Electric Illuminating Co.

Program and Statistics Section—H. C. Hoover, formerly with Potomac Electric Power Co and Wagner Electric Corp.

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Industry M Orders

The following M orders of interest to the electrical industry have been issued by the National Production Authority. Orders not of interest have been omitted. Copies of orders may be secured from the National Production Authority, Washington 25, D. C., or any regional office of the Department of Commerce.

M-44—Production and delivery of heavy power equipment: Requires manufacturers to file monthly reports showing orders on hand, production and delivery schedules. Permits NPA to direct that these schedules be maintained, modified, or altered.

M-47 reduces **steel** allowed for consumer durable goods in second quarter to 80% of average quarter of first six months of 1950.

M-48 puts **bismuth** under rigid controls and limits use to approved purposes. DO orders must be accepted by producers to 50% of output.

Amendments to Previous Orders

Amendment to M-5 requires producers of **pig and ingot aluminum** to supply up to 11½% of their output to independent fabricators with DO orders.

Amendment 4 to M-7 limits **aluminum fabricators** in the second quarter to 65% of their average quarterly rate of consumption the first half of 1950.

Amendment 3 to M-8 puts U. S. users of **pig tin** under allocation effective May 1. Permits tin plate and terne plate manufacturers during second quarter to increase temporarily the use of pig tin to 95% of monthly base period use. Base period is the first six months of 1950.

Amendment 3 to M-12 limits **copper fabricators** in the second quarter to 75% of their average quarterly rate of consumption the first half of 1950.

CHANDLER W. JONES, president, Northampton (Mass.) Electric Lighting Co, who has been serving as a consultant to W. W. Brown, director of Depa's Material and Equipment Division

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DPA Appoints Farrell

Maj Gen Thomas F. Farrell, a former chief of the Corps of Engineers' construction division, has been appointed Defense Production Administration's deputy administrator for resources expansion. He will have final say on who gets what kind of federal assistance for industrial expansion for defense.

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Heads NPA Iron, Steel Unit

Melvin W. Cole, deputy director of the National Production Authority's Iron and Steel Division, has been named director. Cole succeeds David B. Carson who was returned to his position as vice president in charge of sales for Sharon Steel Corp. Cole is on leave from Bethlehem Steel Co.

Utility Finds New Steel Source—Germany

Wisconsin Electric Power Co has found another source of steel for its Oak Creek Plant now under construction. The utility has purchased 1,080 tons of sheet steel piling from manufacturers in Germany. Made at Dortmund, some of the steel has already arrived at the plant site. It will be used in the coal dock. Company officials said that they found that the only source of prompt delivery for such steel is Germany.

NPA Limits Steel for Appliances; Copper and Aluminum Escape Cut

Cut steel and let aluminum and copper go. That's the decision the National Production Authority finally came up with after a month of internal wrangling over how to limit scarce materials going into electrical appliances and a long list of other consumer durable goods.

The steel cut is to be 20% in the second quarter, with the average quarter of the first six months of 1950 as the base period. The escape of aluminum and copper doesn't mean there will be any more of these materials. For example, the cutbacks on fabricators of these metals (as contrasted to manufacturers of finished products) are still in effect. But NPA's decision does mean that appliance makers escaped a lot of paper work that would have been necessary if NPA's plans, as announced last month, had been carried out.

The small assembler of household equipment, who buys parts instead of manufacturing them, is the man who made NPA back down. The controllers couldn't agree on how to force him to reduce a given amount of the three metals without creating an unmanageable flood of paper work. They settled on steel for the only end-product limitation order, hoping it would indirectly result in less use of aluminum and copper.

Manufacturers of the products on the steel cut-back list can use 80% as much iron and steel as they used in the base period. All household appliances, both gas and electric, are named in the order. Accessories are included but not replacement parts. The list specifically names, but is not limited to, cooking and heating appliances, dishwashers, garbage disposal units, food mixers, and juicers. Irons are named along with heavier laundry equipment such as driers and washing machines. Refrigerators, freezers under 13-cu ft capacity and air conditioning units are included. Home entertainment devices are hit across the board—radios, television sets, phonographs, record players, and combinations.

The appliance maker who buys parts, instead of making them, is prohibited from assembling more than 40% as many items in the second quarter as he assembled in the first six months of 1950.

The order makes a special bow to small business. Users of 100 tons or less of iron and steel per quarter in the base period can use an equal amount in second quarter this year.

When NPA announced the steel cutback for finished articles, it said that fabricators of aluminum and copper would still be under "across the board" limitations in the second quarter. The announcement said fabricators of aluminum would again be permitted to use 65% of their base period rate of consumption. Copper fabricators would be permitted to use 75% of the base period, a 5% reduction from the March rate.

Makers of appliances are free to scramble with other manufacturers for all the copper and aluminum which escapes from defense-rated orders. Nobody in NPA thinks there will be enough to fill everybody's needs, even with steel restrictions acting as a brake. Despite some talk about relaxing controls, and an easier supply situation later this year, the outlook for the second quarter is continued shortages.

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Aluminum Is Proposed as Preference Customer

"Preference for the lowest-cost power" might be given to new aluminum producers to encourage competition in the industry, a Congressional committee has suggested.

The House Judiciary Committee subcommittee on study of monopoly power — "Celler subcommittee" — made the proposal in a 50-page report on its findings on the aluminum expansion program.

"This preference need not adversely affect the present three producers because they can absorb somewhat higher power costs along with their present low power costs and still maintain strong advantages," the report argued.

Contending that the government must actively plan additional aluminum expansion, the subcommittee declared that "nothing in this report, however, should be construed as an endorsement of public power as such nor that this emergency should be used as a springboard for unnecessary expenditures of public money on hydroelectric projects under the excuse of the national emergency."

The report of the subcommittee headed by representative Emanuel Celler, New York Democrat, was adopted unanimously by the bi-partisan committee membership.

An accelerated program for aluminum production expansion was urged, with more attention to new producers.

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ELECTROMAGNETIC EXCITER attached to a 150-ft cable span in a Washington State College laboratory is used to study methods of combating the effects of wind vibration on transmission lines. The project is being conducted in cooperation with BPA which spends excessive amounts each year replacing lines damaged by wind vibration. Working here on the project, left to right, are Dr Bernard Fried, staff expert in stress analysis; Dr W. A. Pearl, director, Washington State Institute of Technology; Dr R. L. Albrook, director, division of industrial research

Aluminum Use Extensive in Titus Power Station

Aluminum was used extensively in the new Titus generating station of Metropolitan Edison Co near Reading. Members and guests of the Pennsylvania Electric Association Prime Movers Committee who visited the plant found the entire siding made of aluminum panels containing 3" of glass wool for thermal insulation. The power piping, breeching, hot air duct, and heater insulation is also of aluminum shells with cellular inert air spaces, reputed to be the first installation of its kind in a power company plant.

Among other features enumerated by T. Y. Mullen, Gilbert Associates, and J. G. Miller, Metropolitan Edison, was the installation of a 500-psi tank and compressor system primarily for soot blowing but also intended to supply the hogging ejector for fast start-up of the unit before the boiler pressure has reached the 300 psi normally required for initial vacuum purposes.

The present 60/75 Mw unit and two to follow will be served by a rotary car dumper in conjunction with a car thawing pit and a comprehensive coal handling system. In the superheat line a motor-operated stop valve was installed near the superheater outlet. It proved very useful, it was reported, in the hydrostatic testing of the boiler and blowout of the main steamline to the turbine.

At a paper session before the visit to the plant, W. J. Vogel, Combustion Engineering-Superheater, Inc, traced the evolution of the Titus pattern of reheat boiler as earlier shortcomings showed the way to simplicity, economical performance, and superior availabiiity. C. W. Elston, General Electric Co, recalled the steps preceding the present double-flow tandem reheat unit typified by the Titus Installation. Elston told of the strong trend to reheat and expressed the belief the industry has entered a long-lasting cycle of reheat practice. Starting this line of units at 50 to 100 psi is readily feasible, but it calls for some independent method of creating the initial vacuum, as has been done at the Titus station.

Post-mortem comment the day following the plant visit brought out various features, among them the decision to provide bunker capacity permitting a five-day coal handling. Another was the question of ash sampling to serve the needs of cement and cement-block manufacturers in arriving at feasible use of the flyash.

Washington Legislature Studies Attempted Bribe

A special committee of the Washington State Legislature is trying to place final responsibility for the atatempted bribery of two legislators on the controversial Spokane power bill.

John J. Uleman, a free lance lobbyist, has admitted offering Reps Kenneth H. Simmons and Reuben Knoblauch $25 each to vote for a Spokane-supported amendment to the Gallagher Bill (EW, March 12, p 77). The amendment, approved in the Senate but defeated in the House, would make it impossible for a PUD to buy facilities of Washington Water Power Co within the city without prior approval by voters there. PUD interests concede this would be practically impossible to obtain.

Uleman has worked for Democratic and Republican governors in turn during the last two administrations but has been unemployed the last two years. He pleaded guilty to the bribery count and will be sentenced April 6 in Thurston County Superior Court at Olympia.

Simmons and Knoblauch not only voted against the bill but Simmons exposed the bribe attempt on the floor of the House and filed a complaint against Uleman. He quoted Uleman as saying the money was "Spokane power money."

Apprehended at his home, Uleman admitted offering the bribes but denied anyone was back of his action. He said he had done it because of his personal attitude on the question and "to help out a couple of friends."

Legislative observers expressed the opinion Uleman was acting as a free lance in the hope of obtaining political and power company favor by showing he could control votes. After his arrest, Uleman was quoted as saying "I thought I could get the money if the bill went through. I would have made a few contacts."

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Buys Distribution Lines

Appalachian Electric Power Co has received Public Service Commission approval to buy distribution lines in Putney, Point Lick, and Reed, W. Va., from Hatfield-Campbell Creek Coal Co for $7,129. Appalachian's lower rates will apply to the new customers.

For MAXIMUM SERVICE CONTINUITY

Transfer Loads with G&W AUTOMATIC LOAD BREAK OIL SWITCHES

When even short interruptions of electric service can be very costly and inconvenient, an alternate power source and a means of instantaneous switching must be provided to assure service continuity.

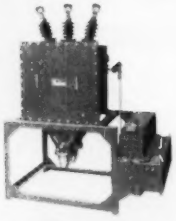
G & W automatic load break oil switches furnish relatively inexpensive insurance against interruption of service when an alternate feeder is available. They will automatically transfer load to an alternate feeder whenever the preferred feeder voltage drops to 65% of normal.

5,000, 7,500, and 15,000 volt switches are made with two types of automatic mechanisms to meet individual requirements.

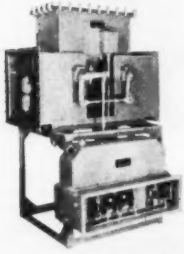
AUTOMATIC THROWOVER TO EMERGENCY FEEDER
MANUAL THROWBACK TO PREFERRED FEEDER

This double-throw switch with Model "A" automatic operating mechanism will transfer load to the emergency feeder in a fraction of a second when the preferred feeder voltage drops to 65% of normal. A detachable handle is used to return load to the preferred feeder and reset the mechanism after the preferred feeder is re-energized.

AUTOMATIC THROWOVER TO EMERGENCY FEEDER
AUTOMATIC THROWBACK TO PREFERRED FEEDER



Fully automatic operation is obtained with this double-throw switch equipped with Model "E" transfer mechanism. Restoration of preferred feeder energizes a control circuit to return load to preferred feeder 2½ minutes after it is re-energized.



Two single-throw load break oil switches with link compartment and Model "E" automatic operating mechanism assure full service continuity with no sacrifice in accessibility to feeders for repair or routine maintenance. Links permit easy isolation of either switch and connected feeder without interrupting service to the load from the other feeder.

Write for Your Copy of Bulletin DA50—Full Descriptions of Automatic Load Break Oil Switches.

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SPLICING—CONNECTING

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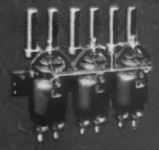

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Many Sizes, Styles, Ratings

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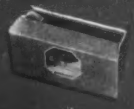

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Above: Linemen tie in the newest Westinghouse "CSP" Transformer to go on the Ohio Edison system. It's the 1,000,001st "CSP" Distribution Transformer to come off the Westinghouse production line.

Inset: The first Westinghouse "CSP" Transformer, installed by Ohio Edison in November, 1933. On Route 8 North of Akron, Ohio, it's still giving dependable service today.

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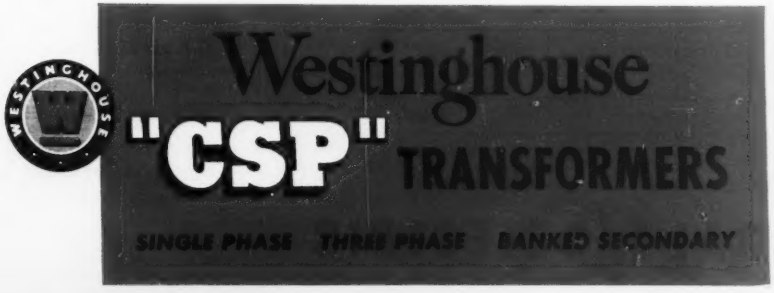
Westinghouse

SEVENTEEN YEARS
Proof enough for one customer

Back in 1933, Westinghouse delivered the first of a new type of distribution transformer to Ohio Edison . . . the "CSP" (Completely Self-Protecting) Transformer. Today, seventeen years later, it's still in service. For a "CSP" Transformer, this record is not unusual.

Ohio Edison has standardized on the completely self-protecting type of transformer and in line with this policy, Westinghouse "CSP" number 1,000,001 has been installed on the Ohio Edison System.

Such performance establishes beyond doubt that "CSP" Transformers offer long-range dependability plus savings in operating costs. It's easy for you to prove for yourself that "CSP" Transformers, with both thermal and lightning protection built in, can cut distribution costs for you . . . are economical to install . . . inexpensive to maintain. Ask your Westinghouse representative for a copy of B-4247B, "TRANSFORMER COSTS . . . and their relation to PROFITS". Or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania. J-70567



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1950 Top Year for Canadian Utilities

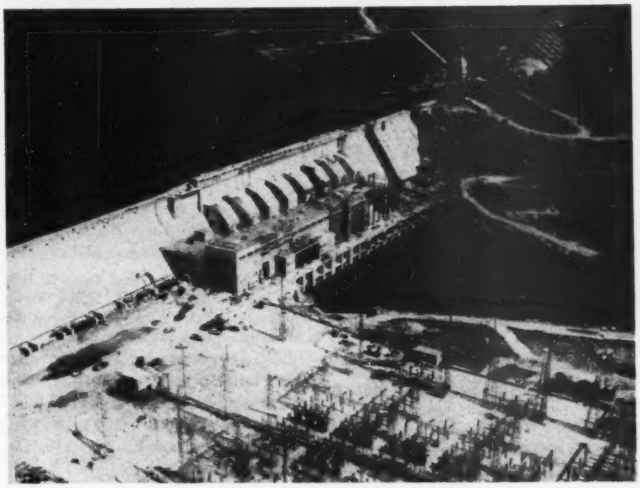
Records Set for Hydro Capacity Installed, Total Output, and Use of Primary Power; 1951 to Be Big Year for Thermal Plant Additions

For the Canadian electric utility industry 1950 was its greatest year. A record 1,037,275 hp of new hydro capacity went on the line. Energy output reached 50 billion kwhr for the first time. Primary energy use approached 46 billion kwhr for another record.

And these records can be called temporary. All indications are that 1951 will bring new ones. Of course the record for new hydro capacity may stand. But instead there will be another record. New thermal capacity scheduled for operation this year totals 329,700 kw. In 1950 only 63,500 kw went on the line. Output and primary-use this year are certain to top the 1950 records.

As in the United States industrial demand for power has forced the Dominion to resort to the firmer thermal power. Highly industrialized Ontario province was forced to reactivate 61,000 kw of thermal capacity on a temporary basis in 1950. This year the Hydro-Electric Power Commission of Ontario will put 232,000 kw of steam capacity on the line. In the near future another 366,000 kw will follow.

Canada, which has a potential hydro capacity of 40,396,150 hp, now has 12,654,835 hp developed. However, many of the undeveloped sites are in areas that are practically uninhabited. Few are left close to the heavily populated and highly developed sections of Ontario, Quebec, and British Columbia. It is the last province where there is still a potential of over 9 million hp that the Canadian aluminum industry is eyeing for future installations.



DES JOACHIMS, one of the big projects of Hydro-Electric Power Commission of Ontario, is nearly complete. Project will have a capacity of 480,000 hp in six units

Canadian utilities (most are provincial authorities) have been rushing new capacity because the Dominion has been short of power. The 1,037,275 hp installed in 1950 was far in excess of the 624,800 hp scheduled at the beginning of the year (EW, Jan. 30, 1950, p 90). Thermal capacity additions, however, fell far behind. Only the 61,000 kw planned for Ontario came in on schedule. The 53,750 kw due in the Atlantic provinces will go on the line this year. The only other thermal installations to start operating in 1950 were two small plants in Alberta and Saskatchewan.

Output of Canada's central stations crossed the 50-billion-kwhr mark in 1950 for the first time. The total was 50,795,294,000 kwhr, over 4 billion kwhr more than the previous record set in 1949. And consumption of primary power kept in step by reaching a record 45,977,859,000 kwhr. This was 3.8 billion kwhr above the previous high also reached in 1949.

A further indication that more power is available in the Dominion is that gross exports to the United States in 1950 were 1,925,780,000 kwhr, the highest since 1947. If the demand for energy continues in the U. S., it is likely that Canadian exports will not only top 2 billion kwhr in 1951 but more than likely will reach a record high.

Canadian Power Plant Capacity and Expansion

Province or Territory	Hydroelectric[1]					Thermal[2]		
	Potential Available	Developed Capacity	Installed 1950	Planned 1951	Planned Future	Installed 1950	Planned 1951	Planned Future
British Columbia	10,998,000	1,285,444	47,875	78,860	88,000	.....	2,700	.....
Northwest Territory	813,500	28,469	.....	.....	3,000	.....	.....	.....
Alberta	1,258,000	168,560	62,000	38,600	.....	1,300	.....	.....
Saskatchewan	1,082,000	111,835	.....	.....	.....	1,200	15,000	.....
Manitoba	5,344,500	595,200	37,500	38,000	120,500	.....	15,000	25,000
Ontario	7,261,400	3,172,540	617,300	276,000	860,000	61,000	232,000	366,000
Quebec	13,064,000	6,370,597	241,800	455,200	1,110,450	.....	.....	.....
Atlantic Provinces	574,750[3]	584,198	30,800	7,330	35,500	.....	65,000	45,000
Canada	40,396,150[4]	12,654,835[5]	1,037,275	893,990	2,217,450	63,500	329,700	436,000

[1]Figures in horsepower. [2]Figures in kilowatts. [3]Survey not complete.
[4]At ordinary six months flow. Engineers estimate 52 million hp of turbines can be installed.
[5]Total correct but less than total of individual items because of unreported retirements.

SPEAKERS at the meeting of the Interstate Power Club included Paul Goodell, left, Jensen Specialties Co; W. V. O'Brien, General Electric Co; John H. Slater, Slater System, Inc; and George Duerr, industrial sales manager, West Penn Power Co

Interstate Club Urged to Stress Effective Usage

Number one job of the industrial power representative today is to direct every effort toward making electric power work more effectively, W. V. O'Brien, commercial vice president of General Electric Co, said last week. He addressed 75 members of the Interstate Power Club in New York.

Industrial power representatives must see to it that electric power provides the greatest possible production per kwhr, whether of defense material or civilian goods. Increased attention, he added, should be devoted to some of the small industrial plants which are in the process of expansion or conversion.

The modern electric furnace with modern transformer equipment is not too "rough" a load for the utility, according to George Duerr, industrial sales manager, West Penn Power Co. It can produce higher quality steel in less time than an open hearth furnace. The overall load factor on a modern steel mill is 60-65%. It makes a good load to handle and is capable of earning a good rate, he said.

Paul Goodell, Jensen Specialties Co, presented a new "panel heat" development for electric process heating. It uses a sheathed type resistance heater which is an extremely good radiator, capable of 39,000 degree-pound payload per kwhr with safety ventilation. This is compared with present conventional equipment producing only 16,000 degree-pound payload per kwhr without safety ventilation. The operating cost of this equipment, reduced in proportion to its utilization, can get down to combustion fuel levels.

"Industry is going to get a lot more heat shortly for extra curricular employee benefits" said John H. Slater, president of Slater System, Inc, in discussing industrial inplant cafeterias. There is a movement toward making inplant feeding facilities mandatory. He said the reason many utilities did not provide these facilities, and some other employees benefits as well, is that they are afraid of criticism from consumers concerned with rate reduction.

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IJC Approval Sought for Libby Dam Project

International Joint Commission approval for construction of Libby Dam and power plant on the Kootenai River in Montana was requested recently by Secretary of State Dean Acheson.

An IJC okay on the project is required under the Boundary Waters Treaty of Jan. 11, 1909, because the 425-ft dam would "raise the natural level of waters on the other side of the boundary." The application for approval was approved and forwarded to Acheson by Army Secretary Frank Pace, Jr, to whom it was sent by Maj Gen Lewis A. Peck, chief of engineers, on Dec. 1.

Libby Dam would create a reservoir 110 mi long, with the upper 42 mi in British Columbia. At full storage, 6,930,000 acre-ft, the reservoir would flood several small communities and farms in Canada along with some secondary roads. It would necessitate raising short lengths of the Canadian Pacific Railway's Crows Nest line and Highway No 3.

Construction will cost the United States about $242 million in all at 1950 prices, with $5.5 million of it to be spent in Canada. A powerhouse at the toe of the concrete gravity dam near the left abutment would have an initial installed capacity of 618,000 kw in six units rated 103,000 kw each. Ultimate capacity would be 10 such units. Average annual energy output would be 6 billion kwhr, of which 2,137 billion would be firm power.

Libby Dam was authorized in the Flood Control Act of 1950, signed by the President last May 17. The project has been actively under study since 1944, when the International Columbia River Engineering Board began exhaustive studies of the Columbia and its tributaries for its parent body, the IJC.

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CIGRE Proceedings Out

The printed proceedings of last summer's session of CIGRE (International Conference on Large Electric High-Tension Systems) are now ready for distribution, the conference's Paris headquarters reports. The three cloth-bound volumes totaling 3,248 pages, available in either English or French, contain the 126 papers on developments in electrical equipment and apparatus and operating practices on high-tension electrical systems in 20 countries presented at the 1950 session. Delivered price is 9,000 francs ($25.71) to non-members and 7,500 francs ($21.43) to members. Copies may be obtained from CIGRE, 112 Boulevard Haussmann, Paris, France.

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To Build 150,000-Kw Plant

Philadelphia Electric Co will build a 150,000-kw plant on the east bank of the Schuylkill River, two miles north of Phoenixville. Work on the $27-million station is expected to begin June 1 and completion is slated for October 1953.

INTERCONNECTED SYSTEMS in upstate New York, comprising Niagara Mohawk Power Corp, Rochester Gas & Electric Corp, and New York State Electric & Gas Corp, have negotiated with outside utilities (arrows) for power to meet coming industrial demands. Operating as a pool, the New York companies have arranged to buy 275,000 kw in 1951; 202,000 kw in 1952; and 115,000 kw in 1953

Power Pool in Upstate New York to Buy Energy for Defense Loads

Operating as a pooled system, three upstate New York power companies have negotiated with interconnected utilities for large blocks of power for the next three years. Expected demand of defense industries made purchases necessary until the three companies can complete planned capacity expansions. The pool consists of Niagara-Mohawk Power Corp, Syracuse; Rochester Gas & Electric Corp; and New York State Electric & Gas Corp, Binghamton.

The Upstate New York Interconnected System, as the pool has been known unofficially for several years, will receive 275,000 kw in 1951, 202,000 kw in 1952, and 115,000 kw in 1953. Principal suppliers will be New England Power Co, Consolidated Edison Co of New York, and the Pennsylvania-New Jersey Interconnection. In each of the three years, 80,000 kw of the total will be firm power from Canadian sources. In addition, members of the pool will add these plant capabilities to their lines: 165,000 kw in 1951, 260,000 kw in 1952, and 440,000 kw in 1953.

Reactivation of the Aluminum Co of America wartime aluminum plant at Massena, N. Y., was a factor in the arrangements. The plant required 12,000 kw in December, another 35,000 kw in January, and will gradually increase its requirements up to the third quarter of this year when a total of 150,000 kw must be supplied. During 1951, other blocks of load totaling 75,000 to 100,000 kw are scheduled to be served by the pool.

In 1950 the interconnected system's total capability was 2,861,000 kw. Firm power contracts with Canadian sources for 80,000 kw enabled the system to meet its December peak of 2,726,000 kw with a reserve of 215,000 kw, about 8%. The pool will meet estimated peak loads in the next three years with these reserves: 3,108,000 kw peak in 1951 with 2.2%, 3,224,000 kw peak in 1952 with 5.3%, 3,341,000 kw peak in 1953 with 13.2%.

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To Buy Utility System

Arizona Edison Co has been granted Arizona Corporation Commission permission to buy the Eloy Power Co for $263,944. The purchase includes property and distribution systems in Toltec, Picacho, and Red Rock, Ariz.

Idaho Governor Doubts Benefits of Hells Canyon

Idaho's Gov Ben Jordan says that he believes that two other power projects would be of more benefit to Idaho than the proposed Hells Canyon Dam on the Snake River which the Bureau of Reclamation hopes to build.

The governor's statement came after a group of water users met in his office with C. Girard Davidson, former Assistant Secretary of the Interior.

Jordan said that both the Palisades Dam in eastern Idaho and the proposed Scriver Creek project in southwestern Idaho would provide more direct benefits to the state.

A spokesman for the group of water users said the Palisades Dam would be "invaluable as a multi-purpose dam and for supplemental irrigation water." Jordan insisted, however, that construction of the Scriver Creek Plant near Smith Ferry on the Payette River should be considered by the government if it needs power quickly. He said that this plant could be generating power within 30 months and that the Palisades project could be producing power about two years before Hells Canyon.

Gov Jordan also pointed out that private development of Hells Canyon power would provide considerable added tax revenue to the state—about $3 million. The Idaho Power Co has expressed an interest in such a development if Hells Canyon is not built by the Federal government.

Davidson was in Boise to confer with water users, the governor, and Bureau of Reclamation officials in preparation for making a special report to the Secretary of Interior on Northwest power development.

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Ask Transmission Line OK

Kansas City Power & Light Co has asked the State Corporation Commission for permission to build a 103-mi, 166-kv transmission line for a standby connection with Union Electric Co of Missouri. The line would extend from Kansas City to the east boundary of Chariton County. Union Electric's application to build its part of the line from Bagnell Dam is before the Missouri Public Service Commission.

Changes in Capacity Reported to Federal Power Commission

PLANT ADDITIONS DURING JANUARY

Utility	Plant	Fuel	Capacity (Kw)
Bangor (Maine) Electric Co.	Eastport	IC	1,000
Bangor (Maine) Electric Co.	East Machias	IC	1,000
Central Maine Power Co	Williams	H	6,000
Central Vermont Public Service Corp	Bristol	H	150
Commonwealth of Massachusetts, Metropolitan District Commission	Oakdale	H	3,500
Worcester (Mass.) County Electric Co	Worcester	S	33,000
United Illuminating Co.	Steel Point (Conn.)	S	30,000
Sharpsburg (Pa.) Boro Electric Department	Sharpsburg	S	1,700
Woodsfield (Ohio) Electric Light Plant	Woodsfield	IC	600
Central Illinois Public Service Co	Grand Tower	S	60,000
St. Louis (Mich.) Electric Light & Water Plant	St. Louis	IC	980
Wisconsin Electric Power Co	Port Washington	S	80,000
Dairyland Power Cooperative	Flambeau, Wis.	H	15,000
Wisconsin River Power Co.	Castle Rock	H	3,000
Windom (Minn.) Light & Water Works.	Windom	S	2,000
Ames (Iowa) Light & Power Department	Ames	S	7,500
Iowa Power & Light Co	Des Moines No. 2	S	46,000
Denison (Iowa) Light & Power Department	Denison	S	3,000
Missouri Public Service Corp	Sedalia	S	7,500
Northern States Power Co	Grand Forks (N.D.)	S	5,000
Hugoton (Kan.) Water & Light Department	Hugoton	IC	840
U. S. Army Engineers	Center Hill (Tenn.)	H	45,000
Mississippi Power & Light Co.	Natchez	S	66,000
Hagerstown (Md.) Electric Light Department	Hagerstown	S	5,000
South Carolina Electric & Gas Co.	Hagood	S	22,500
Cherokee (Okla.) Municipal Light & Water Department	Cherokee	IC	1,000
Southwestern Gas & Electric Co	Knox Lee (La.)	S	30,000
Southwestern Public Service Co	Moore County (Tex.)	S	20,000
Lower Valley Power & Light, Inc.	Freedom, Wyo.	H	1,000
Bureau of Reclamation	Kortes (Wyo.)	H	12,000
Creede (Colo.) Light & Power Co.	Creede	IC	118
Bureau of Reclamation	Davis Dam (Nev.-Ariz.)	H	45,000
Pacific Gas & Electric Co	Moss Landing (Calif.)	S	103,500

PLANT RETIREMENTS DURING JANUARY

Central Maine Power Co	Barker Mills	H	300
Stonington (Maine) & Deer Isle Power Co	Stonington	IC	187
Central Vermont Public Service Corp	Bristol	H	80
Narragansett Electric Co	Providence, R. I.	S	3,150
Rockville Center (N.Y.) Electric Department	Rockville Center	IC	850
Pennsylvania Power & Light Co	Locust Spring	S	6,000
Pitcairn (Pa.) Electric Light Plant	Pitcairn	IC	168
Toledo (Ohio) Edison Co.	Acme	S	20,000
Consumers Power Co	Wealthy St. No. 1 (Mich.)	S	17,500
Wisconsin Power & Light Co	Mayville	S	2,000
Iowa Public Service Co	Kirk	S	3,200
Iowa Public Service Co	Kellogg	S	1,000
Hugoton (Kan.) Water & Light Department	Hugoton	IC	60
Kansas Power & Light Co.	Eureka	IC	196
Duke Power Co	Anderson, S. C.	S	750
Georgia Power Co	Kingsland	IC	144
Florida Keys Electric Cooperative Association	Tavernier	IC	370
La Plata Electric Association	Pagosa Spring, Colo.	S	125
Murray (Utah) City Power Plant Corporation	Granite	IC	300
Mountain States Power Co	Albany, Ore	S	300
Bandon (Ore.) Hydro-Electric Department	Willow Creek	H	200
Los Angeles (Calif.) Department of Water & Power	Alameda St.	S	70,144

H—Hydro, IC—Internal Combustion, S—Steam
United States Capacity as of Feb. 1—Steam, 49,396,594 kw; Internal Combustion, 1,908,095 kw; Hydro, 17,797,621 kw; Total, 69,102,310 kw.

Records Set in Output for December, Year '50

Output set a new record in 1950. Electric utilities turned out 328,997,875,000 kwhr last year, an increase of 13% over the previous high set in 1949. Hydro plants generated 29.1% of the total.

Another monthly production record was set for December, when production totaled 30,632,399 kwhr. This exceeded the previous record set in October, 1950, by about 1,482 million kwhr, or 5.1%. December production was 5.6% greater than that for November, 1950, and 16.3% above output for December, 1949.

Water power plants produced 8,688,791,000 kwhr in December, an increase of 13.9% over the monthly production of the year before. As a percentage of December total production, water power output decreased slightly from 29% in 1949 to 28.4% in 1950. Fuel plants produced 21,943,608,000 kwhr in December.

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Sepa Expands Offices

Southeastern Power Administration now occupies all of the Public-Lucas Building in Elberton, Ga. Sepa formerly occupied only half the building. In addition, it leases an entire adjoining building.

December Energy Sales 16.4% Over Year Before

Sales of electrical energy in December were 16.4% above those for the same month a year before.

Last December electric utilities sold 25,640,329,000 kwhr to ultimate customers, compared to 22,019,687,000 kwhr in December, 1949. Revenue from ultimate customers totaled $458,072,100, or 11.7% more than the $409,941,700 received in December of the preceding year.

Average usage per customer reached 1,830 kwhr in the 12 months ended Dec. 31, a rise of 8.7% from the 1,684 kwhr the average customer took in the same period a year before. The average annual bill amounted to $52.70, or 6.1% above 1949's $49.68. Revenue per kwhr declined 2.4% from 2.95¢ to 2.88¢.

Classification of Sales, December

Kilowatt hour Sales December	Million Kwhr 1950	1949	Percent Change
Residential or domestic	6,560	5,604	+17.1
Rural (distinct rural rates)	478	506	— 5.6
Commercial or industrial			
Small light and power	4,443	4,047	+ 9.8
Large light and power	12,596	10,384	+21.3
Street and highway lighting	321	291	+10.2
Other public authorities	638	580	+10.0
Railways and railroads			
Street and interurban railways	334	334	0.0
Electried steam railroads	224	222	+ 0.9
Interdepartmental	47	52	— 9.1
Total to ultimate customers	25,640	22,020	+16.4

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Canadian Output Statistics

The following statistics supplied by the Dominion Bureau of Statistics are in thousands of kilowatt hours:

Period	1950	1949
Twelve Months' Output	50,795,294	46,673,214
Primary	47,515,785	43,455,082
Secondary	3,279,509	3,218,132
Primary Consumption	45,977,859	42,302,584
Net Exports to U. S.	1,924,428	1,730,690
December Output	4,661,881	4,039,795
Primary	4,356,140	3,838,585
Secondary	305,741	201,210
Primary Consumption	4,228,975	3,746,898
Net Exports to U. S.	177,836	164,368
November Output	4,447,423	3,914,682
Primary	4,256,499	3,714,654
Secondary	190,924	199,828
Primary Consumption	4,132,135	3,629,358
Net Exports to U. S.	143,378	95,24

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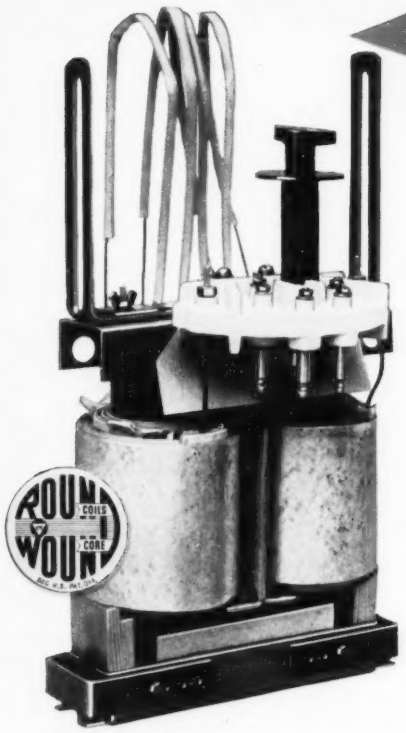
104,000-Kw Unit Ordered

Pacific Gas & Electric Co has ordered the fifth 104,000-kw turbogenerator for its new Contra Costa generating station, now under construction near Antioch, Calif.

to make 3's and 5's out of 1½ kva transformers

... L-M's "UNIVERSAL" core-coil assembly



L-M Round-Wound "Universal" core-coil replacement assemblies are completely dried, impregnated, and shipped in moisture-tight containers. For immediate delivery from warehouse nearest you. 3 and 5 kva, 2400, 4800, 7200 and 7620 volts; fit all makes of tanks, from 1½ kva up. Same high quality characteristics and cooling as complete L-M Round-Wound transformers.

You can make 3 and 5 kva transformers out of your present surplus or overloaded 1½ kvas, easily, economically, with L-M's new "universal" core-coil assemblies. These fit practically all 1½ kva tanks of any make, and can be installed in your own shop, or by one of the L-M-Authorized Transformer Service Shops.

These "universal" core-coil assemblies are Round-Wound design, with all the advantages this design offers in exceptional cooling and other performance characteristics. Both 3 and 5 kva sizes come in 2400, 4800, 7200 and 7620 volts.

Use these L-M Round-Wound core-coil assemblies for quick replacement in emergencies, burnouts, or in the routine business of making big ones out of little ones when 1½'s no longer give your customers enough of what you sell.

They are available from stock in L-M factories or at any of the 45 L-M warehouses throughout the country; or for installation by L-M-Authorized Service Shops.

For details, installation instructions, specifications, ask the L-M Field Engineer or write Line Material Company, Transformer Division, Zanesville, Ohio (a McGraw Electric Company Division).

Some of the L-M-AUTHORIZED Transformer Service Shops

It is not necessary to send transformers to the Zanesville Plant—except for those in the Zanesville area. L-M's nearest Authorized Transformer Service Shop will give you dependable service.

Daley Electric Company
960 East Van Buren Street • Phoenix, Arizona

Dowzer Electric Machinery Works, Inc.
First and Castleton Streets • Mount Vernon, Illinois

Electran Company
4546-50 N. E. Alberta Street • Portland 13, Oregon

Interstate Electric Company
South 5th and E Street • Fort Smith, Arkansas

Jones Electric Repair Company
715 East 7th St. • Charlotte, North Carolina

Larsen-Hogue Electric Company
11510 South Alameda Street • Los Angeles 2, California

Southwest Electric Company
2617-21 South Agnew • Oklahoma City 8, Okla.

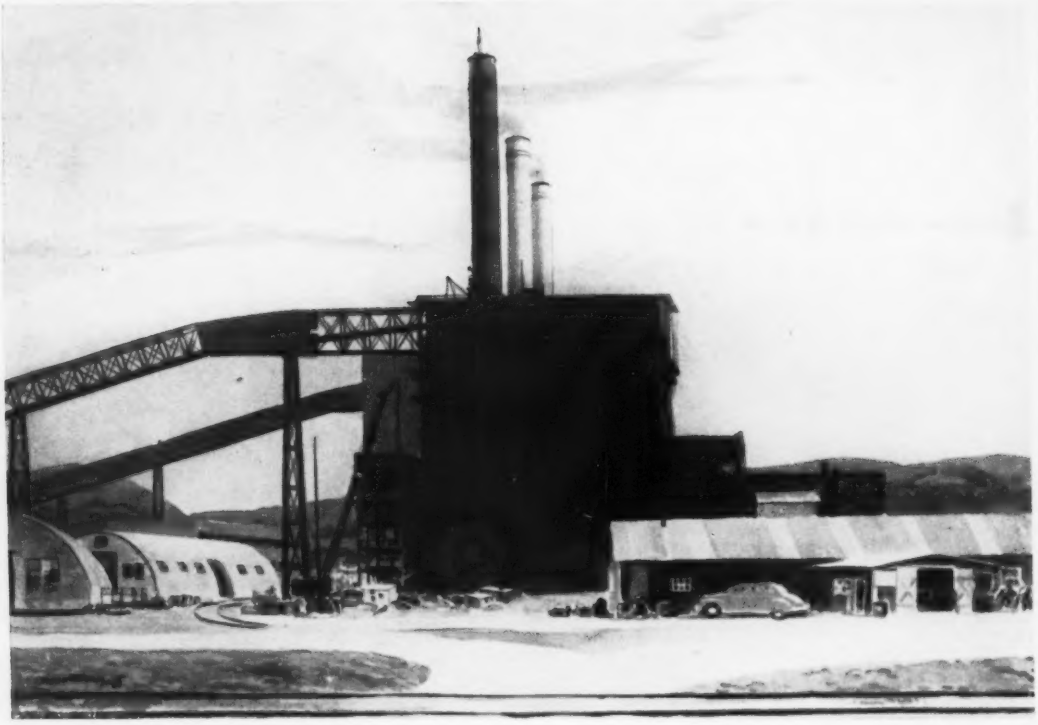
Line Material Company Plant
Zanesville, Ohio

For dependable transformer service...

L-M-Authorized Service Shops provide complete equipment for repairs, genuine Round-Wound rewinding, and all necessary testing facilities.

LINE MATERIAL... Transformers

Complete Coordinated Equipment for Distribution Today



CONSTRUCTION—NEW SUNBURY POWER UNIT, by Karl Manahan. The artist has realistically, yet softly, portrayed progress on the 100,000-kw addition to this PP&L plant's 150,000-kw capacity. New unit will be in full operation by midsummer

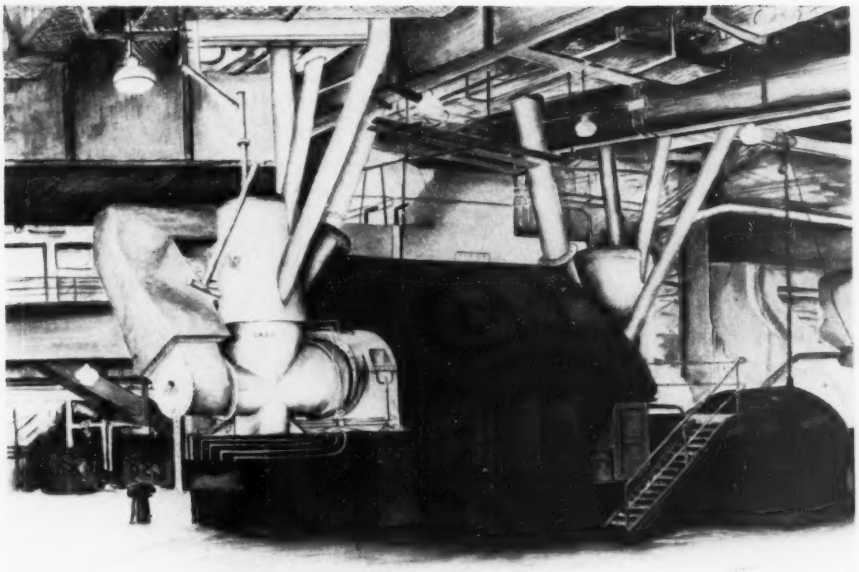
Portrait of Power

Sunbury Plant 'Sits' for 72 Artists; Result Goes on Tour

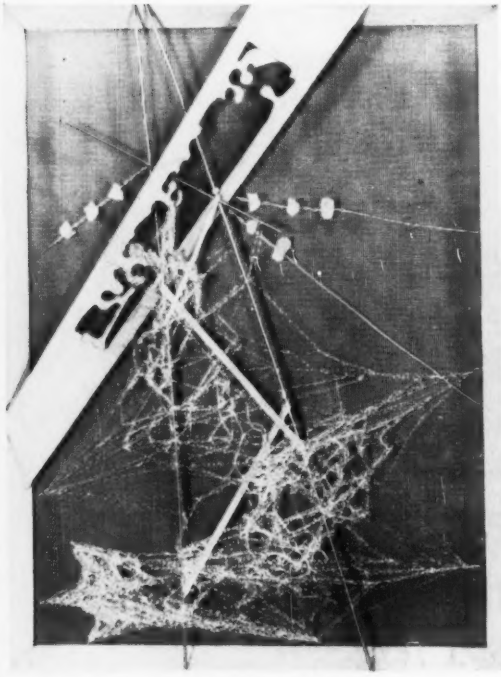
The new Sunbury steam electric station of Pennsylvania Power & Light Co recently sat for an unusual portrait. A group of 72 artists, members of the Lehigh Art Alliance, traveled a hundred miles to the plant one Sunday to capture its dynamics in oil, water color, pastel, and collage. The result was a 99-composition "Portrait of Power," in which realistic, abstract, impressionistic and primitive treatments were used to represent the 150,000-kw installation, largest anthracite-burning power plant in the world.

PP&L exhibited the pictures at its Allentown headquarters. Henri Marceau, Philadelphia Museum of Art, and Howard Henry, assistant art director of N. W. Ayer & Son, Inc., Philadelphia, as judges selected the 25 paintings which they felt "best caught the spirit, the magnitude and the wonder of Sunbury and had thus met the challenge of an industry sitting for its portrait." All 25 were purchased by the company for a permanent collection which was moved to the Pennsylvania State Museum in Harrisburg and is now on tour of the company's 9,500 square mile service area.

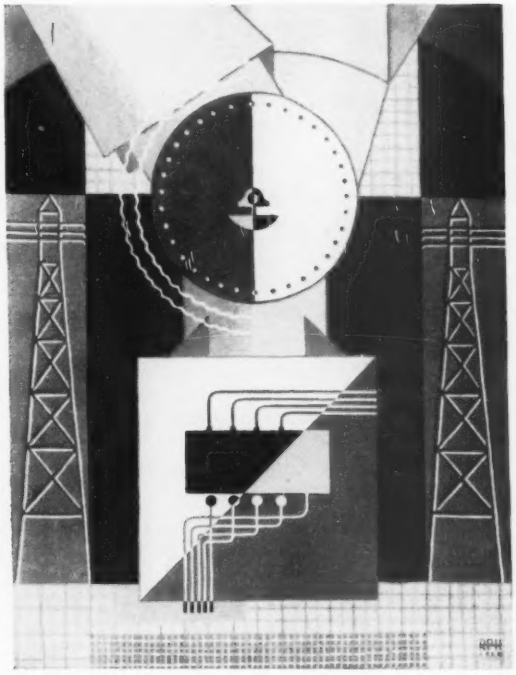
A catalogue giving the story of the "Portrait of Power" exhibit is distributed to visitors, schools, libraries, and the press in the area. The show travels as a complete package from location to location, with illuminated window displays, posters, press kit, and a Life-style story of the Sunbury plant for distribution to exhibit audiences.



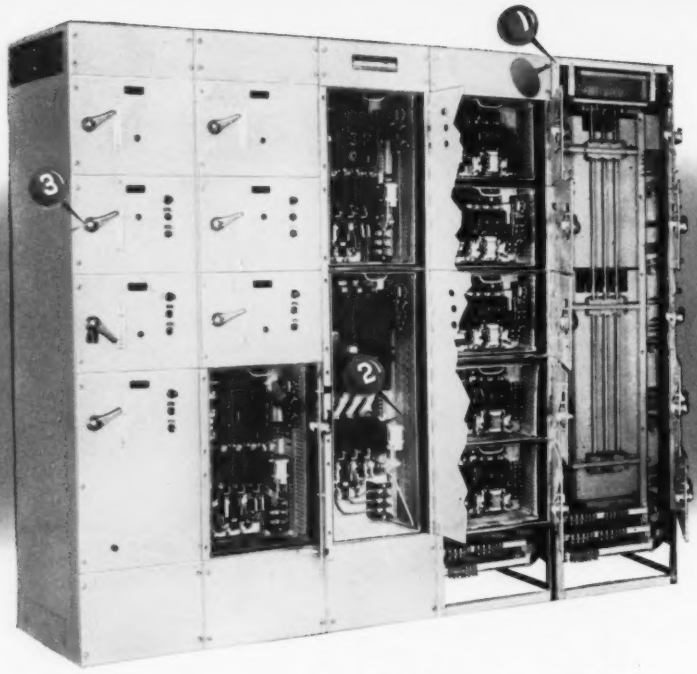
PORTRAIT OF A PULVERIZER, by Garrett Conover. Sunbury's rotating pulverizers challenged artists to a variety of renderings. Contrast this realistic treatment with abstract presentation at right below



FLASH OVER, by Paul F. Remely. The collage depicts surge of electricity spilling over high-voltage tower to the ground



THE PULVERIZER, by Richard Peter Hoffman. Striking abstract design was inspired by geometric forms of the machine



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And they really mean it when referring to Westinghouse Control Centers. Here you get top-quality construction which gives you all the advantages of centralized motor control... quality at every one of the following points:

1. **Sturdy, Self-Supporting, Tight Structures.** No need for angle iron or other bracing. No gaps or cracks to permit entrance of foreign objects. Interior is fully protected.

2. **Complete Baffling** localizes unusual arcing if faults occur. A short circuit in one starter unit cannot spread throughout the entire structure. Removable grille baffle on right side of each unit provides easy accessibility.

3. **Safety Doors,** with safety-interlocking handles, remain on the panel when the starter unit is removed. Doors can be fastened closed to prevent entrance by unauthorized personnel.

For further evidence of a "well built" control center, check these features: self-cooling construction for foolproof ventilation, plug-in starter units, vertical and horizontal wiring troughs.

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J-27009

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YOU CAN BE SURE... IF IT'S Westinghouse

CONTROL CENTERS

MEETINGS

Protective Relay Engineers
Annual Conference, Agricultural & Mechanical College of Texas, College Station, Texas, March 26-28.

Oklahoma Utilities Association
Annual Convention, Mayo Hotel, Tulsa, Oklahoma, March 29-30.

Southeastern Electric Exchange
Engineering and Operation Section, Vinoy Park Hotel, St. Petersburg, Fla., March 29-30; Annual Conference, Boca Raton, Fla., April 11-13.

★**Edison Electric Institute**
Annual Sales Conference, Edgewater Beach Hotel, Chicago, April 2-5; Transportation Committee, jointly with American Gas Association Motor Vehicle Committee, Peabody Hotel, Memphis, Tenn., April 16-18; Purchasing and Stores Committee Annual Conference, Lord Baltimore Hotel, Baltimore, Md., April 30-May 2; Transmission and Distribution Committee, Edgewater Beach Hotel, Chicago, May 1-2; Meter and Service Committee, jointly with Association of Edison Illuminating Companies' Committee on Metering and Service Methods, Huntington Hotel, Pasadena, Calif., May 7-9; Commercial Electric Cooking Conference, Sheraton Hotel, Chicago, Ill., May 9; EEI Accident Prevention Committee, Hotel Utah, Salt Lake City, Utah, May 21-22; Electrical Equipment Committee, Hotel Biltmore, Los Angeles, Calif., May 28-29; Annual Convention, Shirley Savoy Hotel, Cosmopolitan Hotel, Denver, Colo., June 4-7.

American Society of Mechanical Engineers
Spring Meeting, Atlanta Biltmore Hotel, Atlanta, Ga., April 2-5; Semi-Annual Meeting, Royal York Hotel, Toronto, Canada, June 11-15.

Electric Association of Chicago
Industrial Electrical Exposition, Sherman Hotel, Chicago, Ill., April 3-6.

Midwest Power Conference
Sherman Hotel, Chicago, April 4-6.

Missouri Valley Electric Association
Engineering Conference, President Hotel, Kansas City, Mo., April 4-6; Accounting Conference, President Hotel, Kansas City, Mo., May 17-18.

Indiana Electric Association
Young Men's Utility Conference, Ipalco Hall, Indianapolis, April 10-11.

American Institute of Electrical Engineers
District No. 4 Meeting, McFadden-Deauville Hotel, Miami, Fla., April 11-13; District No. 1 Meeting, Hotel Syracuse, Syracuse, N. Y., May 2-4; District No. 5 Meeting, Loraine Hotel, Madison, Wis., May 17-19; Summer General Meeting, Royal York Hotel, Toronto, Canada, June 25-29.

Northwest Public Power Association
Annual Convention, Cascadian Hotel, Wenatchee, Wash., April 12-14.

Rocky Mountain Electrical League
Annual Spring Conference, Shirley Savoy Hotel, Denver, Colo., April 15-18.

Northwest Electric Light & Power Association
Engineering Section, Hotel Utah, Salt Lake City, Utah, April 25-27; Business Development Section, Multnomah Hotel, Portland, Ore., May 7-9; Personnel Section, Davenport Hotel, Spokane, Wash., May 16-18.

Pennsylvania Electric Association
Communications Committee, Bedford Springs Hotel, Bedford, Pa., May 3-4; Joint Meeting of Electrical Equipment, Transmission and Distribution Committees, Abraham Lincoln Hotel, Reading, Pa., May 10-11.

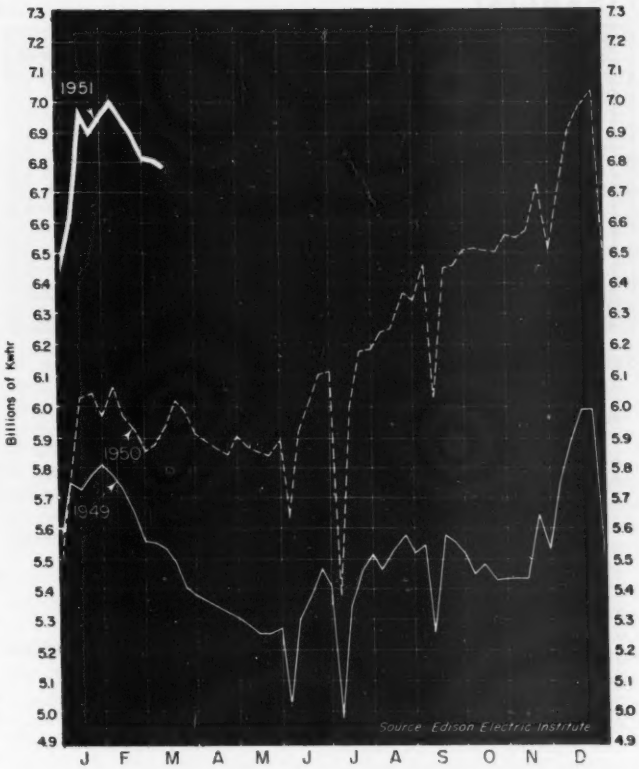
New Jersey Utilities Association
Spring Meeting, Seaview Country Club, Absecon, N. J., May 4.

American Public Power Association
Annual Convention, Read House, Chattanooga, Tenn., May 7-9.

New York Society of Professional Engineers
Engineering Industries Exposition, Hotel Statler, New York, May 10-12.

Public Utilities Advertising Association
Annual Meeting, Hotel New Yorker, New York, May 17-19.

★**Protective Relay Engineers**
Annual Conference, Georgia Institute of Technology, Atlanta, Ga., May 18-19.



Output Week Ended March 10—6,794,517,000 Kwhr

Weekly Output, Millions Kwhr

1951	1950	1949
Mar 10 6,795	Mar 11 5,937	Mar 12 5,531
Mar 3 6,822	Mar 4 5,879	Mar 5 5,552
Feb 24 6,833	Feb 25 5,854	Feb 26 5,559
Feb 17 6,905	Feb 18 5,931	Feb 19 5,650
Feb 10 6,957	Feb 11 5,971	Feb 12 5,722
Feb 3 7,099	Feb 4 6,062	Feb 5 5,778
Jan 27 6,970	Jan 28 5,972	Jan 29 5,810
Jan 20 6,909	Jan 21 6,041	Jan 22 5,769
Jan 13 6,98	Jan 14 6,029	Jan 15 5,727
Jan 6 6,604	Jan 7, 5,695	Jan 8 5,742

Percent Change from Previous Year

	Mar. 10	Mar. 3	Feb 24
New England	+10.5	+ 8.8	+11.6
Mid-Atlantic	+12.2	+11.8	+13.9
Central Industrial	+15.9	+21.2	+17.1
West Central	+14.1	+13.7	+15.7
Southeast	+12.5	+11.9	+16.0
South Central	+23.7	+23.6	+23.4
Rocky Mountain	+10.6	+12.6	+19.5
Pacific Coast	+16.2	+19.7	+19.7
Total United States	+14.5	+16.0	+16.7

Missouri Association of Public Utilities
Annual Convention, Jefferson Hotel, St. Louis, Mo., May 21-23.

Pacific Coast Electrical Association
Annual Convention, Biltmore Hotel, Los Angeles, Calif., May 21-23.

Canadian Electrical Association
Annual Convention, Algonquin Hotel, St. Andrews, New Brunswick, June 18-20.

American Society for Testing Materials
Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 18-22.

★ Addition this week

Florida Franchise OK'd

Voters in Coral Gables, Fla. have approved a new 30-year electric power franchise for Florida Power & Light Co.

44-Hr Work Week Set

Agreement on a master contract between Ontario Hydro-Electric Power Commission and 17 AFL international unions has placed workers on the Niagara project on a 44-hr week and has granted the labor organizations a union shop and wage rates prevailing in Toronto and the Niagara peninsula. The contract, covering 6,500 workers, became effective on March 4 and will continue for the length of the project. The commission will deal with the Niagara Development Allied Council, AFL, representing the 17 unions, instead of dealing with each separately.

YIELDS (%) — Operating Electric Utility Securities

Quality	Bonds 1st	Bonds 2nd	Bonds 3rd	Preferred Stocks 1st	Preferred Stocks 2nd	Preferred Stocks 3rd	Common Stocks 1st	Common Stocks 2nd	Common Stocks 3rd
DATE									
1950									
March 8	2.79	2.81	2.89	3.84	4.07	4.46	5.39	6.02	6.80
Feb. 28	2.70	2.72	2.80	3.81	4.01	4.46	5.41	6.09	6.81
END OF QTR.									
4th 1950	2.65	2.67	2.78	3.86	4.14	4.51	5.80	6.54	7.44
3rd 1950	2.66	2.67	2.76	3.81	4.08	4.46	5.70	6.54	7.25
2nd 1950	2.68	2.66	2.74	3.79	4.03	4.38	5.38	6.51	7.50
1st 1950	2.59	2.61	2.74	3.78	4.01	4.36	5.22	5.85	6.67

Data: Reis & Chandler, Inc.

Suit to Stop WWP Sale Will Be Tried March 27

A taxpayer suit to enjoin the sale of Washington Water Power Co to a group of eastern Washington public utility districts will be tried on its merits March 27 at Colville, Wash., according to a ruling by Judge B. B. Horrigan of Pasco.

Horrigan presided at a Colville hearing March 7 after a temporary injunction had been issued by Stevens County Judge W. Lon Johnson (EW, March 5, p 14). Judge Horrigan also ruled that the Washington Public Service Commission will be allowed to intervene.

One important point of contention, Horrigan's opinion indicated, will be the probable effect of the new Idaho law prohibiting municipal corporations outside the state from acquiring Idaho utility properties (EW, Feb. 5, p 12). About 25% of WWP facilities are in Idaho. A second point is whether the 1949 Washington power law extends to a situation in which utility districts plan to purchase a private power system 90% outside their boundaries.

Horrigan denied that delay would affect the status of the sale. He said, "It is evident that if the seller is making millions by selling and the purchaser is making millions by buying, there is not much danger of the sale's falling through by a few weeks' delay." The PUD's had claimed postponement would cost them $8,200 a day in lost net income and might bring higher bond and bank interest rates.

•

Depreciation Report Out

The 1949 edition of "Electric Utility Depreciation Practices" compiled by the Federal Power Commission is available. When ordering refer to FPC S-87—price 25¢. The report shows that at the end of 1949, 75% of the utilities were using straight line methods of providing for depreciation compared with 52% in 1945 and 15% in 1937. Ratio of reserves to depreciable plant amounted to 20.9% in 1949. Depreciation expense was 2.61% of depreciable plant.

•

Foreign Power Offers Plan for Reorganization

American & Foreign Power Co has filed with the Securities and Exchange Commission a new plan under which the holding company's capital structure would consist only of debt and common stock.

Foreign Power would issue $67,564,600 of new 4½% fixed interest junior debentures and 6,637,500 common shares. The only present securities to remain outstanding would be the publicly held $50 million of 5% debentures and bank loans of $10 million. Electric Bond & Share Co, the parent company and now the largest holder of Foreign Power securities, would receive 56.5% of the new common shares in exchange for its holdings. The rest of the new stock and the entire amount of new debentures would be distributed to public holders of present securities.

FINANCIAL BRIEFS

An increase in the federal corporate income tax was opposed by the executive committee of the National Association of Railroad and Utilities Commissioners at a recent meeting. The group passed a resolution urging that additional taxes levied by Congress on the operations or services of regulated public utilities take the form of an excise tax. Higher income taxes would disrupt present rate structures, the committee said.

Federal Power Commission has approved the rates set out in the famed Oklahoma contract (EW, July 24, p 6) between Interior's Southwestern Power Administration and two private electric utilities in Oklahoma. FPC okayed the rates in the agreement between Public Service Co of Oklahoma, Oklahoma Gas & Electric Co, and SPA for an interim period ending Feb. 13, 1953. The contract calls for a review of rates every three years beginning with that date.

Pennsylvania Power & Light Co has been ordered to confine operation of its fuel adjustment clause to its own steam-generated electric energy. The Public Utility Commission issued the order saying it had found PP&L's fuel escalator rates unreasonable because they apply to all energy used by large quantity fuel clause consumers, including hydroelectric power in which the cost of PP&L coal does not figure. The PUC also found that the fuel adjustment clause does not make adequate provision for PP&L's "rapidly improving system efficiency."

New England Electric System has sold Rhode Island's largest transportation system, United Electric Railways, to What Cheer Associates, Inc, of Providence for $4.7 million.

Electric Utility Financing—March 3-10

Company	Description	Amount of Offering (000)	Offering Price	Yield at Price to Public
Preferred Stock				
Virginia Electric & Power	100,000 sh $4.20 $100-par new money	$10,250	$102.50	4.10%
Common Stock				
West Penn Electric	320,000 sh new money	8,640	27.00	7.41
SCHEDULED FOR FOLLOWING WEEK				
Common Stock—Pacific Gas & Electric, 1,419,562 sh new money, $44 million.				

IN THE INDUSTRY

FISCHER BLACK

Private Enterprise Feeding on Itself

It may be a fact, as counsel for Gerstley, Sunstein & Co stated before the Securities and Exchange Commission in connection with the Washington Water Power Co sale, that "stockholders are not at all concerned with the question of public power versus private power." He may also have been right when he said that "the real interest of a stockholder in this situation" is "under what kind of a divestment and under what kind of a sale will I, as a stockholder, receive the most benefit."

But if one investigated to find out who the stockholders are, particularly the recent purchasers, the situation might clarify itself. One would probably find a goodly number of speculators whose main interest is to turn an extra dollar —the faster, the better. But beyond this point there will be many who innocently hold the stock for the reason of income and private profit.

Directors Speak for the Stockholders

After all, the average stockholder has little choice in the matter of company policy. His only hope is through his official spokesmen, the board of directors. Only when a majority interest is held by one party is the board powerless in corporate affairs.

Robert Robson, prosecuting attorney, Idaho County, Idaho, has this to say to the board of directors of American Power & Light Co relating to their responsibility in connection with the transfer of Washington Water Power Co:

"Any such transaction would violate the statutes of the State of Idaho . . . and would make any such Idaho property so transferred or attempted to be transferred, directly or indirectly, subject of escheat to the State of Idaho. This law further provides that any person or persons who shall act, negotiate, attempt, arrange, or conspire to make effective any such transfer, shall be subject to punishment by imprisonment not to exceed two years . . . penalty by fine not exceeding $5,000.

"As a courtesy to you (Howard L. Aller, president of AP&L) and American directors, I hereby advise you of the civil and criminal penalties to which American and any such person or persons would be subject if you should attempt any such transaction."

These Are Spokesmen for AP&L Stockholders

Who are these men who are speaking for the stockholders of American even to the point of subjecting themselves to criminal prosecution? Why have they lost interest in private enterprise? Here are their names. You will have to solve this riddle.

H. L. Aller, chairman of the board of Washington Water Power; D. W. Jack, secretary-treasurer, American Power & Light Co; John Ellis Knowles, vice president and director, Halsey Corp; William D. Thornton, president and director, Greene Cananea Copper Co, and of Inspiration Consolidated Copper Co; Emory Cantey, lawyer; William N. Westerlund, vice president and director, Halsey Corp; Lawrence C. Haines, vice president, treasurer, and director, Florida East Coast Railway Co; Raymond H. Rebsamen, Rebsamen & East Inc.

TECHNICAL NOTES

ARCHER E. KNOWLTON

Corrosion protection by painting is futile unless the surface is prepared properly, the right paint is used and it is applied properly.

Company costs when compared with those of bidding contractors should allow for paid holidays, insurance payments, welfare and retirement contributions.

Power plant sites are usually water-edge; there is some feeling that poor foundations, expensive condensing works, lack of highway and rail approach may often warrant an inland site even with wells and cooling.

Three years ago brush could be cleared by hand for $35 an acre. The chemicals still do it for that cost today.

Skull resistance (electrical, of course) is about the same as that of the underlying tissue and not unduly high merely because it is bone.

Generator leads failed after being punctured by construction workers who laid planks across them and drove nails in to keep the planks from skidding.

Neoprene hose is considered superior to rubber for life of spray-painting equipment.

Drain check valves have been found of such dubious value in manholes that they are being omitted in present installations.

Osculometer is the name given a device that makes quick and accurate determination of the curvature and second derivative at any point on a plotted curve.

Cracks in cable fireproofing are a fair index of sheath or splice cracks from expansion strains.

Disposal of radioactive wastes might need a larger sump than the Atlantic Ocean, if the world should ever use substantial quantities of nuclear power.

Corrosion of steel by salt used to de-ice highways has been inhibited by adding 1 to 2% of a polyphosphate-nitrite base containing strontium.

Water could be used instead of oil for pipe-type cable installations, but some positive stop-gland would have to be used to keep it from leaking into the cable insulation at the terminals.

NEWS ABOUT PEOPLE

Johns-Manville Corp Elects Cassidy Board Chairman, Fisher President

LESLIE M. CASSIDY

ADRAIN R. FISHER

J. A. O'BRIEN

Leslie M. Cassidy has been elected chairman and chief executive officer of Johns-Manville Corp. He succeeds Lewis H. Brown, who died Feb. 26 (EW, March 12, p 160).

Cassidy will be succeeded as president of the company by Adrain R. Fisher, vice president in charge of asbestos mining. Recently named a vice president was J. A. O'Brien, general manager of the industrial products division. Clifford F. Rassweiler, new vice chairman of the board, will have responsibility for organization and direction of the company's new Planning Board.

Cassidy joined Johns-Manville in 1926 as architectural representative in northern New Jersey. Later he served as a sales supervisor, manager of the Newark sales office, assistant to the vice president in charge of building material sales, general merchandise manager, and general manager of the building products department. He was appointed vice president for sales in 1946 and became president with the retirement of R. W. Lea early this year.

A past president of the National Mineral Wool Association and the Insulation Board Institute, Cassidy is president of the Marketing Executive Society of New York, chairman of the board of governors of the Asphalt Roofing Industry Bureau, and a member of the executive committee, Asbestos Cement Products Association.

Fisher worked for Barber Asphalt Co, Perth Amboy, N. J., and Stowell Manufacturing Co, Jersey City, before going to Johns-Manville in 1923 as superintendent of the asphalt roofing department at the company's Waukegan, Ill., plant. In 1936 he was made production manager, and in 1945 he was elected a vice president. Fisher was named vice president for production in 1946 and early this year became a director and vice president in charge of all asbestos mining.

O'Brien joined Johns-Manville's sales promotion department in 1915. He later served as a salesman, assistant manager of the oil industry department, Eastern division manager of the industrial department, and then sales manager of the power products and industrial department. He was made general manager of the industrial products division in 1946.

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McMillan Is Nominated for AIEE Presidency

(*See Front Cover*)

Fred C. McMillan, head of the Electrical Engineering Department at Oregon State College, has been nominated for the 1951–52 presidency of the American Institute of Electrical Engineers.

W. I. Slichter, professor emeritus of electrical engineering at Columbia University, was chosen by the nominating committee for treasurer. Nominated as vice presidents were Julius C. Strasbourger, supervising engineer, electrical department, Cleveland Electric Illuminating Co; John D. Harper, assistant district power manager, Aluminum Co of America; Ferris W. Norris, chairman of the Electrical Engineering Department, University of Nebraska; Nelson M. Lovell, electrical superintendent, Tucson Gas, Electric Light & Power Co; and Willian R. Way, general superintendent, generating and transmission department, Shawinigan Water & Power Co.

McMillan started as a student engineer with General Electric Co in 1912. Later he served as assistant supervisor of General Electric Experimental Railway and electrical engineer in GE's Railway Engineering Department. He went to Oregon State as an assistant professor in 1920 and was made head of the department in 1937.

A fellow of AIEE, McMillan was a vice president from 1934 to 1936. He also has served on several Engineers Council for Professional Development committees and is a fellow of the

(*Continued on page* 27)

PARKWAY CABLE

Photo courtesy of Barber-Greene Company

For economical, direct-in-the-ground burial

YOU'LL CUT EXPENSE to the minimum by adopting Roebling Parkway Cable for distribution and general power supply circuits. This cable is buried directly in a shallow, economical trench... and assures you dependable, maintenance-free service year in, year out.

Roebling Parkway Cable is made in single and multiple conductor — solid or stranded — in a range from 600 to 5,000 volts. Furnished with metallic armor or non-metallic ROEPRENE sheath, depending upon the amount of physical protection required.

C. A. A. Approved for Airport Lighting

Roebling Type A cable for 600 volts, and Type B for 3,000 and 5,000 volts, pass all C.A.A. requirements for Specification No. L-824. Both types are made in single and multiple conductor construction. Type A has RP insulation; the insulation of Type B is ozone-resistant oil-base rubber.

Large quantities of Roebling's full line of electrical wires and cables are called for in the national rearmament program. The Roebling organization and distributors will always, however, give you the best service and deliveries within their power. John A. Roebling's Sons Company, Trenton 2, New Jersey.

ROEBLING

Atlanta, 934 Avon Ave ★ ***Boston,*** 51 Sleeper St ★ ***Chicago,*** 5525 W. Roosevelt Rd ★ ***Cincinnati,*** 3253 Fredonia Ave ★ ***Cleveland,*** 701 St. Clair Ave, N.E. ★ ***Denver,*** 4801 Jackson St ★ ***Houston,*** 6216 Navigation Blvd ★ ***Los Angeles,*** 216 S. Alameda St ★ ***New York,*** 19 Rector St ★ ***Odessa, Texas,*** 1920 E. 2nd St ★ ***Philadelphia,*** 230 Vine St ★ ***San Francisco,*** 1740 17th St ★ ***Seattle,*** 900 1st Ave, S. ★ ***Tulsa,*** 321 N. Cheyenne St
Export Sales Office, ***Trenton, N. J.***

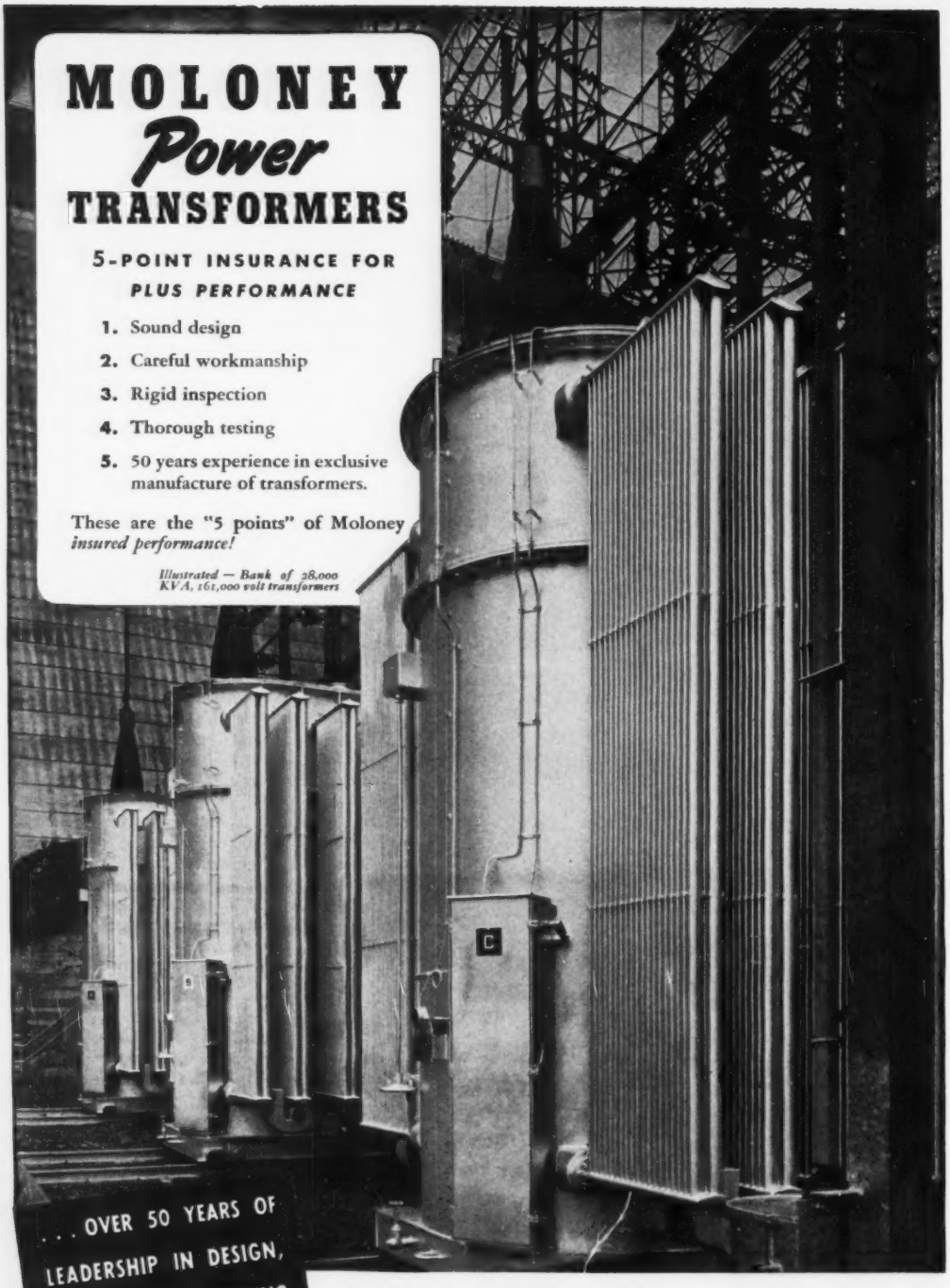
MOLONEY *Power* TRANSFORMERS

5-POINT INSURANCE FOR *PLUS PERFORMANCE*

1. Sound design
2. Careful workmanship
3. Rigid inspection
4. Thorough testing
5. 50 years experience in exclusive manufacture of transformers.

These are the "5 points" of Moloney *insured performance!*

Illustrated — Bank of 28,000 KVA, 161,000 volt transformers



. . . OVER 50 YEARS OF LEADERSHIP IN DESIGN, RESEARCH, ENGINEERING

MOLONEY ELECTRIC CO. ★ ST. LOUIS 20, MO.

SYLVANIA'S greatest light-bulb premium offer is really going to town...

Get on board FOR PROFITS NOW!

No doubt about it, the new Sylvania all-purpose shears is the most tempting premium ever offered.

These shears, useful in garden, kitchen, and household, are wanted by every housewife. Worth at least $1.29 . . . offered for only 50¢ plus the outside carton of a Sylvania 4-Pack. Mailed direct to purchasers.

Nationally advertised premium

Helping spread the news about this popular Sylvania premium is big-space advertising in 4 national magazines: *Better Homes and Gardens, Good Housekeeping, Look,* and *McCall's Magazine.*

Featured on big TV show

Telling millions more about this special offer is the nationwide, weekly Television Show, "Beat the Clock".

FREE colorful displays . . . ad mats

Now's the time to tie in with this national program. Sylvania offers big, FREE, colorful store and window displays which tell about the shears offer at a glance. FREE ad mats, too, all ready to send to local papers.

So, don't delay. Call your Sylvania bulb representative for full information or mail the coupon TODAY!

SYLVANIA ELECTRIC

Sylvania Electric Products Inc.
Dept. L-7203, 1740 Broadway
New York 19, N. Y.

I'd like to know more about Sylvania's big all-purpose shears promotion program.

Name_____

Store_____

Street_____ Zone____ State____

City_____

SYLVANIA ELECTRIC PRODUCTS INC. 1901–1951 50th ANNIVERSARY FIFTY DECADES OF PROGRESS

LIGHT BULBS; FLUORESCENT TUBES, FIXTURES, SIGN TUBING, WIRING DEVICES; RADIO TUBES; TELEVISION PICTURE TUBES; ELECTRONIC PRODUCTS; ELECTRONIC TEST EQUIPMENT; PHOTOLAMPS; TELEVISION SETS

COMPLETELY STANDARDIZED...

...except for value!

Do nationally accepted standards for size, strength, and electrical performance put the basic quality of all station insulators on a par? If this is true, they would all last about the same length of time, and your own experience tells you they don't!

Standards apply to the "as manufactured" condition. They relate to the *first day* of an insulator's life, while what you actually got for your dollar is not measured until the *last day*. The better the insulator, the farther these days are apart.

So far, thousands of O-B station insulators have put close to 35 years behind their first day. They are still giving satisfactory service with no hint of the last day's ultimate arrival. This performance *isn't* "standard" and can't be specified--except by putting "O-B" on your station insulator orders.

Ohio Brass

MANSFIELD OHIO, U. S. A.

4118-M

News About People

(*Continued from page 22*)

American Association for the Advancement of Science, a senior member of the Institute of Radio Engineers, and a member of the American Society for Engineering Education and the Northwest Electric Light & Power Association. He is the author of a number of technical articles and papers. In 1943 the State Department sent him to China as a specialist in electrical engineering to the Chinese government.

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Utica Drop Forge & Tool Names 2 Vice Presidents

Charles E. Wilderman and Daniel E. Waterbury have been appointed vice presidents by Utica Drop Forge & Tool Corp.

Wilderman joined the company in 1945 as chief metallurgist and has since been plant superintendent and division manager. He served U. S. Steel as metallurgist for 15 years before coming to Utica. He has written a number of articles on precision drop forging for the technical press.

Waterbury entered the company in 1943 as a draftsman on precision forgings. He moved into the engineering division and served as production control manager before his appointment as vice president.

•

A. G. Hendrickson has been appointed welding equipment sales manager of A. O. Smith Corp. He will work under L. F. Vonier, welding division sales manager, who until now managed sales of both welding electrodes and welding machines. Hendrickson formerly was assistant manager of the welder sales division of Harnischfeger Corp.

Kenneth L. Mumper, superintendent of Ohio Power Co's northern division, has been named to a similar post in the new valley division at Portsmouth.

John F. Wicklein, formerly with the "Newark Evening News" at Elizabeth, N. J., has joined the news staff of "Electrical World." He succeeds **Francis J. Shea** who has been called to active duty as an officer of the Air Force.

Better Light Better Sight Makes Ronayne Manager

John H. Ronayne of the commercial department of Edison Electric Institute has been appointed manager of the Better Light Better Sight Bureau in New York City.

He has been acting manager of the bureau for the past year. He succeeds

JOHN H. RONAYNE

Glen R. Trumbull, who headed it from its beginning in 1934 until his retirement late in 1948.

Ronayne joined EEI in 1940 to handle publicity for the commercial department. After military service in World War II he returned to the institute as a member of its editorial staff. He was transferred back to the commercial department in 1947.

Before going to EEI he spent five years with Daniel Starch & Staff, then a New York advertising agency specializing in electric and gas utility accounts. There he worked on institutional and promotional copy for companies in the former Associated Gas & Electric Co system.

OBITUARY

H. L. Crumley, Jr

Howard L. Crumley, Jr, 51, former chief engineer for Virginia Electric & Power Co, died March 8 at his home in Arlington, Va.

Crumley worked for General Electric Co and Georgia Railway & Power Co before joining New Jersey Power & Light in 1926 as relay engineer. A year later he was appointed assistant superintendent of operation for the New Jersey utility and in 1932 chief system operator. He joined E. M. Gilbert Engineering Corp, Reading, Pa., as electrical engineer in 1937 and later became consulting engineer for Utility Management Corp in Reading. While in Reading he headed that section of the American Institute of Electrical Engineers.

Crumley's first post with what is now the Vepco system was as general superintendent of Virginia Public Service Co at Charlottesville. Later he became superintendent of operations and in 1941 operating vice president. When Virginia Public Service was merged with Vepco in 1944 he became vice president in charge of the western division and in 1946 chief engineer. He retired three years ago because of poor health.

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Richard E. Smith

Richard E. Smith, 63, who retired in 1947 as general manager and vice president of Atlantic City Electric Co, died at his home in Atlantic City March 1.

Smith joined the sales force of Scranton Electric Co in 1911. Three years later he entered the sales department of Atlantic City Electric Co. He became commercial manager in 1917, assistant general manager in 1935, and vice president and general manager in 1941. In 1947 he retired after 35 years with American Gas & Electric system companies.

•

Frederic S. Brown, an electrical engineer with Duquesne Light Co, Pittsburgh, died March 4. He had retired March 1 after 40 years' service. He helped design electrical facilities at Colfax, Reed, and Phillips power stations and at the Elrama station, now under construction.

Will M. Frazee, 82, former Indiana utility executive, died recently in Rushville, Ind. He was one of the founders of the old Indianapolis & Cincinnati Traction Co and was a vice president of Southeastern Indiana Power Co.

John A. Lytle, an electrical engineer with Narragansett Electric Co, Providence, R. I., for the last 23 years, died March 6. He had formerly been employed by Duquesne Light Co, Pittsburgh.

MANUFACTURERS and MARKETS

Westinghouse Net Sales Pass Billion-Dollar Mark

Net sales billed passed the $1-billion mark last year for the first time in the history of Westinghouse Electric Corp. They totaled $1,091,-923,051, compared to $945,699,382 in 1949 and $970,673,847 in the previous record year of 1948.

Net Income Sets Record

Net income of $77,922,944 also set a record. It was equal after preferred dividends to $5.36 a share and to a return of 7.6% on net sales billed, the highest return for any postwar year. The previous record year was 1949 when net income was $67,268,555 or $4.95 a share. Ratio of net income to net sales billed in 1949 was 7.1%.

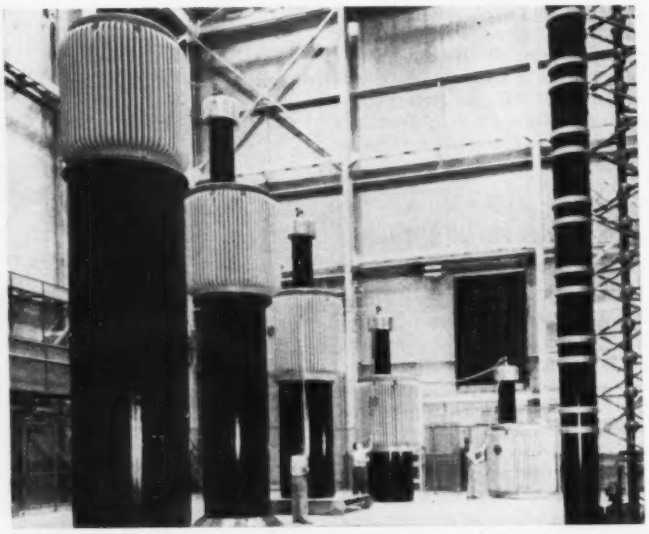
For the fourth quarter of 1950 net income totaled $28,843,744, equal to $2 a share on common stock. This compared with net income of $18,-304,147, or $1.35 a share, in the corresponding quarter of 1949.

Generator Sales Zoom

Last year Westinghouse received orders for steam turbine generators with a total capacity of 5 million kw, seven times the capacity ordered from the company in 1949. Consumer products accounted for about 32% of sales. Although Appliance Division plants shipped 30% more products than in the previous record year of 1948, almost all consumer products were kept on allocation throughout the year. Lamp business reached a record volume; output of the Fairmont, W. Va., plant alone exceeded that of the entire Lamp Division in 1939.

More than 35% of unfilled orders at the year's end were for military requirements, Gwilynn A. Price, president, said, and 1951 production for military needs is expected to be in about the same proportion. Diversion of critical materials to military purposes has cut output of television and radio receivers and appliances some 20% below the last quarter of 1950.

This year the company expects to spend about $42 million on expansion. Westinghouse has added more than seven million sq ft of floor area in the last five years and has increased actual physical volume of manufacturing capacity about 50%. The company has no plans for financing during 1951.



IN FOR A BIG SHOCK, these five test transformers at General Electric Co's Pittsfield, Mass., High Voltage Laboratory will be short circuited at 1,590,000 v. more than 14,000 times normal household voltage. In view above transformers, connected in series, are being placed on successively higher insulating towers

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Price of Tin Collapses

The price of tin took a sharp dive in all world markets after the United States government announced it was stopping its stockpiling purchases. In New York early last week the metal was down to $1.34 a lb, off 48¢ a lb from the quotation of March 2.

Metal Prices
March 12, 1951

COPPER, Conn. V., lb	$ .24½
LEAD, N. Y., lb	.17
ZINC, prime Western, E. St. Louis, lb	.17½
TIN, Straits qual., N. Y., lb	1.34
ALUMINUM, ingot, base price	.19
NICKEL, base price	.50½
STEEL, billets, Pitts., ton	56.00
STEEL, scrap, No. 1 heavy, Pitts., ton	45.00

Foster Wheeler Sets Up French Firm under ECA

Foster Wheeler Corp, New York City, has established an associated company in France under terms of a $213,500 Marshall Plan investment guaranty.

The French company, Societe Foster Wheeler Francaise, will handle the parent company's general sales and engineering activities in France. Foster Wheeler designs, manufactures, sells, and installs power plants, chemical plants, oil refineries, and other especially engineered industrial equipment.

Foster Wheeler is making an initial investment of $150,000, of which $100,000 will be loans and $50,000 will be a capital contribution. The ECA guaranty insures the convertibility of francs derived from the investment up to $213,500 over a period of approximately 12 years. The dollar investment will be used to defray operating expenses, including financing of engineering work now in progress.

Supreme Court Asked to Deny Motion of FCC

Radio Corporation of America asked the United State Supreme Court to deny the motion of the Federal Communications Commission seeking to avoid the Court's review of the color television case. RCA pointed out that action by FCC in prohibiting the broadcasting of a compatible system is contrary to law.

The general policy of the Communications Act of 1934, insofar as it relates to broadcasting, is one of competition, said RCA. The decisions of this Court emphasize the obligation of the commission to promote competition in broadcasting.

Incompatibility is a problem for the research laboratory, RCA continued, and the cost of achieving compatibility should be borne by the developer of a color system. It should not be passed on to the public—as the commission has done in this case.

MANUFACTURING BRIEFS

A new Electronic Tube Division of Westinghouse Electric Corp will build its headquarters plant and engineering laboratories on a 100-acre tract four miles northwest of Elmira, N. Y. Two complete factories will be set up in a one-story building containing about eight acres of floor space, six times as much area for the manufacture of electronic tubes as is now available in the company's Lamp Division headquarters plant at Bloomfield, N. J. The plant will supply the military services and defense industries. When these needs decline, it will be converted to make radio and television transmitting and receiving tubes and industrial and x-ray tubes. Completion of construction work is scheduled for early next fall.

The electric motor's contribution to home, farm, transportation, and industry is stressed in "Motors on Parade," a 26-minute, 16-mm black and white film produced for the Delco Products Division of General Motors Corp. The movie also shows how electric motors are made on a mass production basis. It is available for showing by business firms, schools, and civic and professional groups.

NEW ELECTRICAL CONSTRUCTION

A weekly selection of U. S. electrical construction projects announced by private and government utility systems involving more than $70,000. Also listed are major industrial and construction jobs where electrical work is indicated or implied

UTILITIES

Proposed Construction

Arkansas and Missouri—Carroll Electric Co-operative Corp., W. Vernon Huston, engr., Berryville, Ark., 264 mi. single-phase 7,620 volt vertical type rural distr. lines in Benton, Carroll, Madison, Newton, Searcy, Boone and Pope Counties, Arkansas, and Barr and Stone Counties, Missouri Proj., Arkansas 18W, Carroll, **$595,000.** H. B. Gieb & Assoc. Engineers, Texas Bank Bldg., Dallas, Tex., consult. engrs.

Arizona-Nevada—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., supervisory control and telemetering equipment for Knob, Blythe, Maricopa and Phoenix Sub-stations and Parker and Davis Power Plants, and Phoenix Dispatcher's Office, Davis Dam Proj., Spec. DS-3293. L. N. McClellan, ch. engr.

Calif., Inyokern—Officer in Charge of Construction, Bldg. 981, Naval Ordnance Test Station, exten. electric power sys. at Naval Ordnance Test Station, Spec. 26341. Plans deposit $10.

Colorado—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., constr. Gore Junction-Muddy Pass 69-kilovolt transmission line, Colorado-Big Thompson Proj., from approx. 5 mi. northwest of Kremming, Spec. DC-3338.

Idaho—Booneville Power Admin., 827 N. E. Oregon St., Portland, Ore., constr. Boomers Ferry sub-station, Boundary Co. Inv. 5635. Plans deposit $25. L. C. Stewart, eng.

Kentucky—Grayson Rural Electric Co-operative, Grayson, 477 mi. rural distr. lines, sys. imprvs., Carter Co. **$1,000,000.**

La., Minden—U. S. Eng., 300 Broadway, Little Rock, Ark., replacement electric line poles, Louisiana Ordnance Plant, near here, Webster Parish, Job. No. Louisiana O.P. ORD 51-1, Eng. 03-050-51-7.

Mo., Weldon Spring—Atomic Energy Comn., 1901 Constitution Ave. N. W., Wash. 25, D. C., atomic energy research development proj. on site of former Weldon Spring Ordnance Plant in St. Charles Co. **$100,000,000.**

Neb., Trenton—City, power plant exten.; bldg. alterations and diesel engine, wiring, switchboard, etc. (a) used engine, $45,000; (b) new engine, $65,000. Harold Hoskins & Assoc., 231 N. 11 St., Lincoln, engr.

S. D., Woonsocket—Central Electric & Gas Co., H. A. Hanson, secy., 114 S. 12 St., Lincoln, Neb., plant and equip. **$280,000.**

Neb., Sidney—City, power plant and distr. imprvs. **$100,000.** Fulton & Cramer, 922 Trust Bldg., Lincoln, consult. engrs.

N. M., Los Alamos—U. S. Atomic Energy Comn., Los Alamos, medical research laboratory. **$1,500,000-$1,800,000.** Plans deposit **$50.**

N. C., Franklin—Mantahala Power Co., Franklin, power plant.

North Dakota—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., furnishing del. f.o.b. cars shipping point or f.o.b. cars Jamestown, Carrington, Devils Lake, Leeds, Rugby, Lakota, Edgely, Forman and Bismarck, controlling station supervisory control and telemetering switchboard section and associated equip. for Jamestown sub-station for supervisory control of Carrington, Devils Lake, Leeds, Rugby, and Lakota substations from and telemeter to Jamestown sub-station; controlled-station supervisory control and telemetering switchboard section and associated equip. for Carrington sub-station for supervisory control of Carrington sub-station from and telemeter to jamestown sub-station; for Devils Lake sub-station for supervisory control of Devils Lake sub-station from and telemeter to Jamestown sub-station; for Leeds sub-station for supervisory control of Leeds sub-station from and telemeter to Jamestown sub-station; for Rugby sub-station for supervisory control of Rugby sub-station from and telemeter to Jamestown sub-station; for Lakota sub-station for the supervisory control of Lakota sub-station from and telemeter to Jamestown sub-station; for Jamestown sub-station for supervisory control of Edgeley and Forman sub-stations from and telemeter to Jamestown sub-station; for Edgeley sub-station for supervisory control of Edgeley sub-station from and telemeter to Jamestown sub-station; for Forman sub-station for supervisory control of Forman sub-station from and telemeter to Jamestown sub-station; for Bismarck sub-station for supervisory control of Bismarck sub-station from and telemeter to Jamestown sub-station, Missouri-Souris Dist. Transmission Div., Missouri Basin Project, Inv. No. DS-3325.

Washington—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., radio communication equipment, irrigation Div., Columbia Basin Proj., Spec. DS-3300. Extended date. L. N. McClellan, ch. engr.

Low Bidders & Contracts Awarded

Calif., Long Beach—Macco Corp., 14409 S. Paramount Blvd., Paramount, Calif., Contract Awarded, **$2,321,000,** steam electric generating PLANT alterations. Southern California Edison Co., 601 W. 5 St., Los Angeles, Calif.

Fla., Vero Beach—Nordberg Mfg. Co., Chase and Oklahoma Aves., Milwaukee, 7, Wis. Contract Awarded, **$392,137,** 2875 kw. diesel electric GENERATOR in municipal power plant, City, Vero Beach, Fla. Awarded Feb. 24.

Mass., Danvers—Leslie R. Porter, 126 Park St., Beverly, Mass. Contract Awarded. **$1,000,000.** MFG BLDG. Hytron Radio & Electronic Corp., 76 Lafayette St., Salem, Mass.

Minn., Granite Falls—Northern States Power Co., A. S. Keely, supt., 15 S. 5 St., Minneapolis, Minn. Separate Contracts. 75x150 ft., 40,000 kw-steam generating PLANT supplementing existing 20,000 kw plant.

Montana—Grafe-Shirley-Lane Co., 714 W. Olympic St., Los Angeles, Calif. Low Bidder. **$1,796,542.** POWERHOUSE and electric switchyard, incl. turbines and equip. at Hungry Horse Dam, Hungry Horse Proj. Spec. DC 3282. Bureau Reclamation, Hungry Horse Gov't Camp, Columbia Falls, Mont. Bids Mar. 1.

N. Y., Elmira—H. K. Ferguson Co., 1783 E. 11 st., Cleveland, O. Contract Awarded. **$3,360,000.** Two complete electronic tubes factories, approx. 330,000 sq. ft., on 100 acre tract. Westinghouse Electric Corp., Union Bank Bldg., Pittsburgh, Pa.

Tex., Erath—Missouri Valley Constructors, Amarillo, Tex. Contract Awarded. Approx. **$2,000,000.** 100x110 ft. steel frame, insulated steel panels, rein.-conc. bsmnt. Power Station. Southwestern Public Service, c/c Bill Gilstrap, 5 and Polk Sts., Erath, Tex.

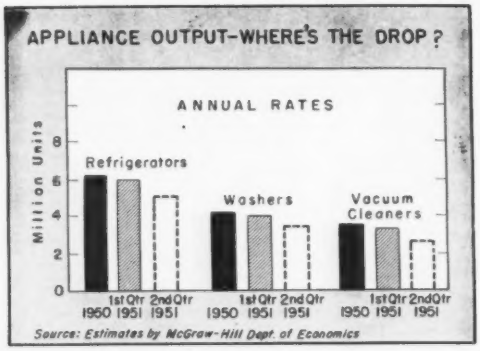
INDUSTRIAL, COMMERCIAL & PUBLIC BUILDINGS

Proposed Construction

Ill., Chicago—Prudential Insurance Co., 763 Broad St., Newark, N. J., plans by Naess & Murphy, 80 E. Jackson Blvd., Zone 4, 35 story office on air rights of Illinois Central R. R. at Randolph St. near Michigan Blvd. **$30,000,000.**

N. J., New Brunswick—Dpt. Education, State of New Jersey, State House, Trenton, state medical and dental colleges at Rutgers University, **$25,000,000.**

Electrical Business Outlook



BIG APPLIANCES—refrigerators, washers, vacuum cleaners—are still being made at a rate approaching the 1950 average

How Many Appliances in 1951?

Appliance makers have fooled the forecasters who said their 1951 business would drop a third or a fourth below the 1950 total. First quarter production is hardly off at all (chart). And even if NPA's restrictions take hold in the second quarter, the bite won't be much over 15%, for total appliance output.

So far the industry has kept one jump ahead of controls. Copper restrictions didn't hurt in January or February because manufacturers had lots of parts on hand. And they've also been very ingenious in finding substitutes.

There's a limit to this, of course. Some makers are falling behind their March schedules. But output isn't sliding the way you might expect from NPA orders. These cut copper use 20% and aluminum 27% from the base period (1st half 1950).

In the second quarter, the limiting factor will be steel. NPA's steel order may hold total appliance output 20% below the base period level and 15% below the first quarter of this year.

Production Rate Still Almost That of 1950

All these percentages add up to one simple fact: The rate of appliance production for the first half of 1951 will be almost as high as for the full year 1950. Actually, the full year 1951 can still turn out to be one of the appliance industry's best. If present NPA policy is continued, steel use will be cut further in the third and fourth quarters. But production won't come anywhere near a standstill. In fact, for the next few months, considerable selling effort will be required to move the TV sets.

Assuming a gradual extension of materials restrictions, here's what 1951 production totals might be:

	1951	1950
	(millions)	
Refrigerators	4.6	6.2
Washers	3.4	4.3
Vacuum cleaners	2.8	3.5
Radios	12.4	14.6
TV sets	5.5	7.2
5 appliances	28.7	35.8
Percent change	−20%	

The future may not be as happy as these figures suggest. Present easy control on materials may be junked by summer. The best analysis available on military requirements indicates much sharper cutbacks on civilian output than anything NPA has talked about. And the metal problem is being made worse by a new flood of orders for metal-heavy capital goods.

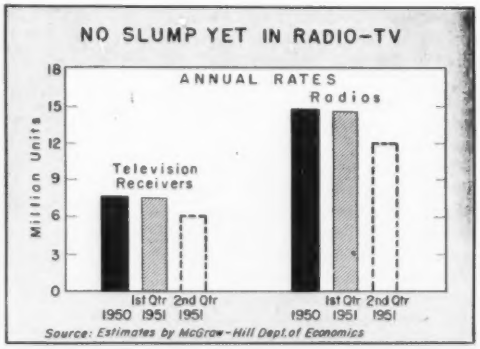
But Appliances and Capital Goods Are Rivals

A real fight is brewing in Washington over whether to cut consumer goods enough to make way for this new wave of capital expansion or whether to start restricting industrial programs. When the Pentagon's bill of materials is added up, it won't leave much metal to divide between consumer and capital goods production. And there are strong arguments against cutting either one.

The capital expansionists argue for an all-out effort to expand industrial capacity, even if it means cutting consumer goods output down to replacement parts. They feel we'll need the industrial facilities if there is full-scale war.

There are a number of other arguments for favoring capital expansion. Because appliance pipelines are still full, cuts in production would not be felt at consumer level for months ahead. Who knows what will happen in coming months? And there is still the old appeal to the people's patriotism to sacrifice.

But the consumer goods experts have an argument too. We'll build at least 300,000 new houses in the 2nd half of 1951—perhaps 400,000 if defense housing is required. And those new homes must have refrigerators, ranges, and other appliances.



ELECTRONIC ITEMS—radios and TV sets—haven't slipped either although there may be sharp cuts later this year

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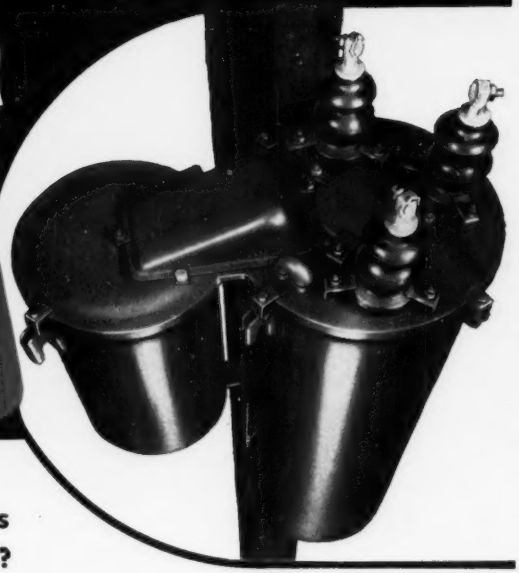

Why go on losing money on lines with so-called "adequate" voltage?

YOU MAY THINK 105v or 110v is "adequate." Lights work, motors run, stoves heat, and radios play. But they aren't operating at their rated voltage. Users are affected in many ways. Motor life is shortened . . . light bulb efficiency is low . . . heating is slow. Users are losing money whether they know it or not!

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You can use the band width advantage in three ways:

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2. You can increase load carrying capacity.
3. You can extend feeder length.

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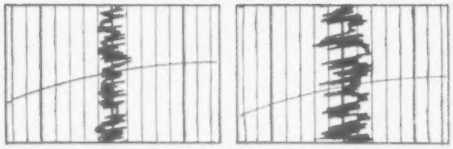

2 volt band **4 volt band**

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